

United States
Circuit Court of Appeals

For the Ninth Circuit.

Transcript of Record.
(IN THREE VOLUMES.)

WILSON AND WILLARD MANUFACTURING
COMPANY and ELIHU C. WILSON,
Appellants,

vs.

ROBERT E. BOLE and EDWARD DOUBLE,
Appellees.

VOLUME III.
(Pages 673 to 904, Inclusive.)

Upon Appeal from the United States District Court for
the Southern District of California,
Southern Division.

Filed

SEP 28 1915

F. D. Monckton,
Clerk.

United States
Circuit Court of Appeals

For the Ninth Circuit.

Transcript of Record.
(IN THREE VOLUMES.)

WILSON AND WILLARD MANUFACTURING
COMPANY and ELIHU C. WILSON,
Appellants,

vs.

ROBERT E. BOLE and EDWARD DOUBLE,
Appellees.

VOLUME III.
(Pages 673 to 904, Inclusive.)

Upon Appeal from the United States District Court for
the Southern District of California,
Southern Division.

(Testimony of W. H. Fahnestock.)

Q. So you have not examined the book, then, thoroughly?

A. I examined it. I went through it twice thoroughly. I worked last night on it and also this morning, and I marked the place.

Mr. LYON.—I don't think there is any foundation for the witness' testimony whatever.

Q. (By the COURT.) Did you keep that book?

A. I was one of the office force that kept it.

Q. Who superintended the keeping of the books?

A. Mr. E. C. Wilson, or, at that time, W. W. Wilson gave me as many orders on the bookkeeping as anybody else. He was in charge of the books when I went there.

The COURT.—Well, I think this witness, Mr. Blakeslee, has told us all he can tell about it.

Mr. BLAKESLEE.—We will put on others on that point. That is all.

The COURT.—All right. [592—531]

Cross-examination.

(By Mr. LYON.)

Q. Now, Mr. Fahnestock, returning to this sketch here; you have testified twice in regard to this, haven't you, heretofore?

A. I think I have testified twice or three times.

Q. Now, will you state positively that you did not on January 27th, 1911, write your name W. H. Fahnestock, on Plaintiffs' Exhibit "E," as a witness, at the request of Mr. Bole?

A. I wouldn't state positively, but down in my own

(Testimony of W. H. Fahnestock.)

heart I feel that I never signed that document as it stands there.

Q. Have you any recollection of the circumstances at all? A. No, sir.

Q. One way or the other? A. No, sir.

Q. That is your signature on there, isn't it?

A. I believe it is.

Q. Now, you were out of California for a while this fall, back east, weren't you?

A. I was out of the State about ten days.

Q. And when you came back, Mr. Wilson or Mr. Blakeslee told you that they wanted you as a witness in this interference, didn't they?

A. Well, some of them did; I don't remember who it was.

Q. And they showed you either this sketch or a photographic copy of it, didn't they (handing to witness)? A. Photographic copy.

Q. And told you that they thought the signatures were forgeries, didn't they?

A. Well, it was lying on the desk in Mr. Blakeslee's office before the notary in charge of the case, and we were all looking at it.

Q. Well, wasn't that the talk, that they thought that your [593—532] signature was forged on that instrument?

A. They thought that the signature was forged or that there was some kind of fake about it.

Q. Now, after having that talk with them, you came to my office, didn't you? A. I did.

Q. To find Robert E. Bole? A. Yes, sir.

(Testimony of W. H. Fahnestock.)

Q. And you made three or four trips to my office to reach Mr. Bole, didn't you?

A. I think it was two, Mr. Lyon.

Q. And then you telephoned and requested Mr. Bole to come out to your house? A. Yes, sir.

Q. And you have no recollection whatever in regard to it? A. No, sir.

Q. Did you attempt at any time to deny that this was your signature on this Complainants' Exhibit "E"?

A. No, I don't know as I have attempted to deny that this was my signature.

Mr. LYON.—That is all.

Redirect Examination.

(By Mr. BLAKESLEE.)

Q. You have stated that you were trying to find Mr. Bole last fall before testifying; did you find him? A. Yes, sir.

Q. And you had a certain conversation with him that evening at your house? A. Yes, sir.

Q. And that was at 6647 Selma Avenue, Los Angeles, California?

A. Selma Street. [594—533]

Q. On what date?

A. It was the early part of October; I don't remember the date.

Q. October 7th, 1913, was it?

A. It was about that date.

Q. Now, at that time and place did he say to you in response to your question that at the time he showed you this sketch we have been discussing, all

(Testimony of W. H. Fahnestock.)

he said was that he wanted you to witness it?

Mr. LYON.—We object to that on the ground that it is not the same question that was asked Mr. Bole.

The COURT.—Objection sustained. Ask him directly a leading question as to what was said about that instrument by Mr. Bole.

Q. (By Mr. BLAKESLEE.) What was said then at that time by Mr. Bole as to what he had previously said to you at the time he had shown you this sketch?

A. I was sitting in my front room with a number of check stubs before me, examining the signatures when he came and—

The COURT.—Talk louder, please.

A. I was sitting at a table examining a number of checks when Mr. Bole came, and I told Mr. Bole that I had been called upon to testify, and that I couldn't remember anything about the signature, and asked him if he could tell me where it was signed in the shop, or give me something in connection with it whereby I could remember the incident of signing it; and he said no, he didn't know as he could, it had been quite a while ago and there were several places around there where you could sign things, and then he said that it was at the big bookkeeper's desk—that would mean my desk in the office. And I asked him two or three times about the signing of it, and he said he had made it out in the other room and brought it in there and asked me to witness it; and I asked him if it was the same then as it was at the present time, and Mr. Bole said, "Yes; it is just the

(Testimony of W. H. Fahnestock.)

same; it hasn't been changed any." [595—534]

The COURT.—Can't you talk a little louder? Everybody in the room is on a strain to hear what you say. Go ahead.

A. Well, that was about the substance of the conversation of the evening. We talked about various things.

The COURT.—Well, that is all we want to know, just about this signature. Anything else, Mr. Blakeslee?

Mr. BLAKESLEE.—That is all.

Recross-examination.

(By Mr. LYON.)

Q. You testified in regard to this same conversation in the preliminary examination of Mr. Bole in Justice Forbe's Justice Court of Los Angeles county when Mr. Wilson had Mr. Bole arrested for alleged forging of this same Complainants' Exhibit "E," did you? A. Yes, sir.

Q. And in that hearing Mr. Bell, the deputy district attorney, asked you the following question: "Q. Mr. Fahnestock, what was your object in going out to see Mr. Bole or having him come out to see you at the time you testified in your cross-examination?" And you answered, "A. In September I had been called east; I was told when I returned to the office that Mr. Bole—cited that lawsuit in progress, and summoned me as a witness, and I wanted to know of Mr. Bole if he could give me any information regarding the drawing whereby I could recall or brush up my memory of it, and he wouldn't do it." Did

(Testimony of W. H. Fahnestock.)

you give that testimony? A. Yes, sir.

Q. Was that your best recollection at that time?

A. Yes, sir.

Q. Now, Mr. Fahnestock, you stopped Mr. Bole on Santa Fe Avenue along in June, 1914, and asked him if he had any sketches that you had witnessed for him, didn't you? A. No, sir. [596—535]

Q. You had a conversation with him at the time didn't you? A. That is correct.

Q. And at your request he showed you your signature on something, didn't he?

A. It looked like my signature; I was standing two or three feet away.

Mr. BLAKESLEE.—Objected to, and ask that the answer be stricken out as not responsive to the question.

The COURT.—Read the question and answer.

(The last question and answer are read by the reporter.)

The COURT.—I think it is responsive.

Mr. BLAKESLEE.—He didn't state that it was at the request of Bole.

Q. (By Mr. LYON.) Will you state positively that it was not this signature, "W. H. Fahnestock" on Complainants' Exhibit "E" that he showed you at that time?

A. No, sir; I have no way of knowing.

Mr. LYON.—That is all.

Mr. BLAKESLEE.—And after—

The COURT.—Stand down, now. We have gotten out of this witness all the facts which are possible for him to give. [597—536]

[Testimony of W. W. Wilson, for Defendants
(Recalled).]

W. W. WILSON, recalled by the defendants, testified as follows:

Direct Examination.

(By Mr. BLAKESLEE.)

Q. You have testified previously for the defendants in this case, have you not? A. Yes, sir.

Q. Do you know who was in charge of the office of the Wilson & Willard Manufacturing Company in 1911? A. Yes, sir.

Q. Who? A. Myself.

Q. Do you know whether any 4½ inch pumps were ever made for Mr. Bole or the Bole Pump Company at the Wilson & Willard Manufacturing Company's shop, the shop of the defendants?

Mr. LYON.—We object to that as grossly leading, incompetent, and no foundation laid.

The COURT.—Objection overruled.

A. No, sir, there were no pumps, 4½ inch size, made in the year 1911.

Q. (By Mr. BLAKESLEE.) Were there any made at any time at your shop for the Bole Pump Company or Mr. Bole?

Mr. LYON.—Same objection and exception.

A. Not to my knowledge, no 4½ inch pumps were ever made in the shop for Mr. Bole.

Q. (By Mr. BLAKESLEE.) At no time?

A. At no time.

Q. Do you know who entered up orders received by the Wilson & Willard Manufacturing Company

(Testimony of W. W. Wilson.)

in the year 1908? A. I did.

Q. At that time did you enter up any order for anything to be shipped to the Sunset-Monarch Oil Company, Maricopa, California? [598—537]

A. Yes, sir.

Q. On what date?

A. On September 18th I entered up an order for—

Mr. LYON.—Now, if your Honor please, let me interrupt the witness a moment. If counsel will concede that their time-books show that Mr. Bole was absent from the Wilson & Willard shops from September 12th to September 20th, 1908, I won't object to this question on the ground that it is secondary evidence; in other words, they must either produce all their records here, or none of them.

Mr. BLAKESLEE.—I don't think we have to concede anything; we are producing the best evidence.

Mr. LYON.—We object on the ground it is not the best evidence.

Mr. BLAKESLEE.—We will produce the order, and the witness said he entered it up.

Mr. LYON.—Where is the order?

Mr. BLAKESLEE.—We are going to produce the order for it, the shop record order, and this witness will tell what the order was before he refers to it.

The COURT.—Where is the order? Let's see it right now. You are beating around the bush here too much. Let's get at this thing. Now, what is this order you are showing?

The WITNESS.—This is order Number 708 for sales to the Sunset-Monarch Oil Company, Hazelton,

(Testimony of W. W. Wilson.)

California, one 9 $\frac{5}{8}$ reamer for Diamond B. X. Casting.

The COURT.—3 by 4 by 7 pin, 300. Now, is that what you want to show by that answer?

Mr. BLAKESLEE.—Yes, sir.

The COURT.—What other entry do you want to show?

Mr. BLAKESLEE.—Order 708.

The WITNESS.—Order 709, that is dated 9-18; order Number 708 is dated 9-18-08. [599—538]

The COURT.—Go ahead.

The WITNESS.—The next order is dated 9-19-08, Sunset-Monarch Oil Company, Order Number 713, one 10 inch Bole spear.

The COURT.—How do you make out that is the next order?

The WITNESS.—That is the next order in the filing rotation.

The COURT.—Oh, 437, 438.

A. 438.

Q. That shows the credit to R. E. Bole; is that right? A. Yes, sir.

Q. And this 708 is credited— A. To E. C. W.

Q. E. C. W. Who is E. C. W.?

A. Mr. E. C. Wilson.

Q. (By Mr. BLAKESLEE.) What does that mean, "credit E. C. W."?

A. These sales orders are debited up to the account, and the credit for this amount goes to the credit of Mr. R. E. Bole or E. C. Wilson.

(Testimony of W. W. Wilson.)

Q. (By Mr. LYON.) E. C. Wilson meant the reamer account?

A. Yes, sir.

The COURT.—What else do you want in here?

Mr. BLAKESLEE.—That is all, I think.

The COURT.—All right.

Q. (By Mr. BLAKESLEE.) Mr. Wilson, from whom did you receive instructions to enter up this order?

The COURT.—Which order are you talking about now?

Mr. BLAKESLEE.—Order 708 in that book.

A. Mr. Willard gave me those instructions.

Q. Mr. Arthur G. Willard, of that company?

A. Yes, sir.

Q. What did he say to you in giving those instructions? A. I don't remember.

Q. Did he give you any special instructions that you know of? [600—539]

A. Nothing particular any more than is usually given.

Mr. BLAKESLEE.—That is all.

Cross-examination.

(By Mr. LYON.)

Q. In the interference proceeding you were asked the following question: "Q. 444. Are you able to state of your own knowledge that the Wilson & Willard Manufacturing Company did not receive from Mr. Robert E. Bole, from Maricopa, California, an order to ship to the Sunset-Monarch Oil Company at Maricopa a $9\frac{5}{8}$ inch under-reamer and Bole casing

(Testimony of W. W. Wilson.)

spear, and an extra set of 10-inch Wilson cutters, such order being in writing and received by the Wilson & Willard Manufacturing Company by mail?

A. I don't remember of any such order being received." "A. No, sir; the Wilson & Willard Manufacturing Company did not receive any such order in writing."

A. That is correct; that is my memory of it, too.

Q. "Q. 447. If any such order had been received by the Wilson & Willard Manufacturing Company during September, 1908, from Mr. Robert E. Bole, ordering such under-reamer and spear shipped to the Sunset-Monarch Oil Company at Maricopa, California, you are certain you would have seen it, are you?"

A. "Yes, sir, as I wrote up the order." Now, I don't want to take time, Mr. Wilson; you have read over your testimony doubtless two or three times; I will ask you this further question; didn't you in this same deposition testify that you entered up this order for the under-reamer after Mr. Bole had returned, and on his verbal order?

Mr. BLAKESLEE.—Show him the testimony.

Mr. LYON.—I will take time to do it if he doesn't remember it. I want to save time.

A. I don't remember as to that. However, on checking the [601—540] matter up in regards to the dates, I am unable to place where Mr. Bole got back prior to the 20th of the month; these orders being entered up on the 18th or 19th, I must have gotten this order from Mr. Willard, because there

(Testimony of W. W. Wilson.)

was no other party there from whom I could have gotten it, in authority, to give the orders so I would write it up.

Q. So the records of the shop show that Mr. Bole was absent from September 12th to September 20th, 1908, do they? A. Yes, sir.

Mr. LYON.—That is all.

Mr. BLAKESLEE.—That is all. [602—541]

[Testimony of A. G. Willard, for Defendants
(Recalled).]

A. G. WILLARD, recalled by the defendants, testified as follows:

Direct Examination.

(By Mr. BLAKESLEE.)

Q. You previously testified for the defendants in this case? A. Yes, sir.

Q. You have heard the testimony just given by Mr. W. W. Wilson as to the receipt and entering up of this order 708? A. Yes, sir.

Q. Do you know anything about the work that was done on filling that order?

A. I know that the work was completed in the shop of the Wilson & Willard Manufacturing Company.

Q. Who was in charge of the shop at that time?

A. I was in charge—

Mr. LYON.—If your Honor please, this man has been all over this twice; he has been recalled on this particular question.

Mr. BLAKESLEE.—We propose to have it iden-

(Testimony of A. G. Willard.)

tified by shop records and his own testimony how soon this work was commenced. The question was raised whether he communicated with Mr. Wilson before he commenced work on this order.

The COURT.—Why didn't you put it in at the time?

Mr. BLAKESLEE.—I want to put in this further piece of evidence, that is all. Of course it was available, but the witness didn't advert to it. I will be very brief, your Honor.

Mr. LYON.—He has been here all the time.

The COURT.—Overruled. Go ahead and get at it quickly.

Q. (By Mr. BLAKESLEE.) When was the first piece of work done on that order in the shop?

A. Now, these shop orders refer to order Number 709?

Q. Yes, and what connection has that with order 708?

A. Well, it says for a $9\frac{5}{8}$ reamer. [603—542]

Q. Yes. Was there any other reamer at that time for the Sunset-Monarch Oil Company?

A. This doesn't say for the Sunset-Monarch Oil Company at all. It says for a $9\frac{5}{8}$ inch reamer.

Q. What reamer was that?

A. Order 709, and shop number 1073.

Q. Compare it with the shop order records, if you wish.

The COURT.—Don't those show for themselves what they are?

Mr. BLAKESLEE.—Except for the discrepancy

(Testimony of A. G. Willard.)

in the numbers 708 and 709.

Mr. LYON.—I don't think this witness knows anything about it; furthermore, it is all immaterial. There is no claim here—

The COURT.—Just a minute, Mr. Lyon. Tell what this order shows.

The WITNESS.—These are time cards, your Honor, of the men that work in the shop of Wilson & Willard Manufacturing Company, on this date.

Q. That is all there is to it?

A. That is all there is to it.

Q. The COURT.—That is all there is to it. That will be marked as an exhibit.

Q. (By Mr. BLAKESLEE.) When was the first work done on that?

The COURT.—Don't they show?

The WITNESS.—Yes, sir.

Q. (By Mr. BLAKESLEE.) That was the job, was it?

The COURT.—What is that?

Mr. BLAKESLEE.—I asked him if that was the job.

The COURT.—What job?

Mr. BLAKESLEE.—The job on filing the order for the Sunset-Monarch Oil Company.

A. I can't state that positively; I don't know who this 95/8 inch reamer went to; we billed a 95/8 inch reamer in the shop [604—543] of the Wilson & Willard Manufacturing Company at that time for the Sunset-Monarch Oil Company.

Q. Have you looked through the records to find if

(Testimony of A. G. Willard.)

any other reamer was billed at that time than this 709?

Mr. LYON.—Objected to.

The COURT.—Objection sustained. [605—544]

[**Testimony of Fritz R. Rydgren, for Defendants.**]

FRITZ R. RYDGREN, called by and on behalf of the defendants, being first duly sworn, testified as follows:

Direct Examination.

(By Mr. BLAKESLEE.)

Q. Please state your full name, age, residence and occupation?

A. My name is Fritz R. Rydgren; my occupation is tool-smith, with the San Pedro, Los Angeles and Salt Lake Railroad at present.

Q. Have you at one time worked for the defendant company in this case, the Wilson & Willard Manufacturing Company? A. Yes, sir.

Q. When did you commence such employment?

A. I commenced on the 9th of July, 1909.

Q. And when did you leave that company?

A. On the 27th of July, 1912.

Q. Did you work on under-reamers made by that company? A. Yes, sir.

Q. What sort of work did you do on such under-reamers?

A. I done the hardening of the top of the under-reamer, and I made keys for them and levers and wedges and springs, necessary parts, and at times tee bars and cutters and tongs, cutter tongs.

(Testimony of Fritz R. Rydgren.)

Q. Did you ever have anything to do with keys for the Wilson under-reamers? A. Yes, sir.

Q. What were those keys used for in the reamer?

A. The keys I drew out from under the hammer from nickel steel mostly.

Q. What were they used for in the reamer?

A. They were used to hold up the tee bar.

Q. On the bottom of the spring? A. Yes.

Q. They were a single-piece key, were they? [606—545] A. Yes, sir.

Q. Do you recollect when you made the first of such single-piece keys?

A. It was in the early part of 1911.

Q. And do you know who made the first of such single-piece keys made in that shop?

Mr. LYON.—That is objected to as calling for the conclusion of the witness.

The COURT.—I think so. Objection sustained.

Mr. LYON.—I want to say that I object to all the testimony of this witness as not rebuttal, unless it be brought down to some specific part of the testimony.

The COURT.—I think so, Mr. Blakeslee, and it seems to me all this is not rebuttal so far.

Mr. BLAKESLEE.—I am going to specifically rebut.

The COURT.—If you have got any rebuttal, just ask him, and let us get down to the rebuttal business.

A. There was no reamer key made by me until I got the sketch from someone, I don't know who gave me the sketch, but there was a rough pencil sketch on a piece of wrapping paper handed to me.

(Testimony of Fritz R. Rydgren.)

Q. (By Mr. BLAKESLEE.) Did Mr. Robert E. Bole, the complainant in this case, give you any instructions at any time for making such single-piece Wilson reamer keys, or give you any such sketch?

Mr. LYON.—Object to that as leading.

The COURT.—Did Mr. Bole testify that he did.

Mr. BLAKESLEE.—He testified that he made a sketch from which the first key was made.

Mr. LYON.—He didn't say that he gave it to this man.

The COURT.—Did he say who gave it to this witness?

Mr. BLAKESLEE.—He said it was attached to the order, and the order went to the shop.

The COURT.—I am asking you if he gave it to him specifically? [607—546]

Mr. BLAKESLEE.—Not specifically

The COURT.—Objection sustained.

Q. (By Mr. BLAKESLEE.) From whom did you obtain such sketch?

A. I don't remember who gave me the sketch.

Q. And did anybody in the year 1911 work on making keys in that shop but you?

A. No, there was nobody else that made any keys except me, that I know of.

Q. Now, were there any differences as between those keys as to the thickness or strength of the material or anything of that sort as you made them from time to time?

A. The only difference in the size of the keys was in the size of the reamers; the smaller reamers take

(Testimony of Fritz R. Rydgren.)

a thinner key and the larger ones take a thicker key, thickness and width, both.

Q. As to any sized reamer, was there any difference made at any time as to the thickness or strength of the key?

A. There was no change that I know of, except what was made in the machine-shop; I forged them all to the same sizes that were ordered.

Mr. BLAKESLEE.—That is all.

Cross-examination.

(By Mr. LYON.)

Q. You didn't see all the keys after they were machined, did you? A. No.

Q. In other words, your work on the keys and familiarity with them ceased after you forged them; is that true?

A. Sometimes they came back to me to be tempered on the ends.

Q. Sometimes you saw them then to temper them, and sometimes you didn't?

A. Yes, that is the idea. [608—547]

Q. And you can't positively state, then, as to what was the construction of every one of those keys, can you, when they were afterwards put into the reamer?

A. Will you state that again?

Mr. LYON.—The question is withdrawn; I think it is argumentative.

Q. Now, in making up those keys and forging them, you had to have some directions in the beginning as to the size of the key and the wing on it, and so forth, didn't you? A. Yes.

(Testimony of Albert W. Houriet.)

Q. And that was the purpose of this sketch?

A. That was the purpose of the sketch.

Mr. LYON.—Now, that is all.

The COURT.—Call your next witness.

Mr. BLAKESLEE.—That is all.

The COURT.—There are some questions I would like to ask myself, if counsel on each side are agreeable to it.

Mr. BLAKESLEE.—We invite it, your Honor.

Mr. LYON.—So do we.

The COURT.—Mr. Houriet. [609—548]

[Testimony of Albert W. Houriet (Recalled by the Court).]

ALBERT W. HOURIET, recalled by the Court, testified as follows:

The COURT.—Mr. Houriet, who was present when you first saw this key taken out of the reamer Number 120 by driving a chisel in it?

A. Who was present?

Q. Yes, sir.

A. Well, I was working with it by myself when I first took it out.

Q. About when was that? A. The date?

Q. Yes.

A. Well that was about the middle of February.

Q. About the middle of February, 1911?

A. 1911.

Q. And how many times did you take it out and put it in before you called Knapp's attention to it?

A. Well, I should judge I took it out two or three times. At first I tried it with a chisel and then I

(Testimony of Albert W. Houriet.)

picked up a file there, and I said, "Anything that is tapered like that is good to take it out."

Q. You said that to whom?

A. To Mr. Knapp, the foreman.

Q. You said that to Mr. Knapp. Was he present the first time you used the chisel?

A. He was not there at that time when I was working, no, not that I remember of.

Q. Did you take it out and put it in before you called Mr. Knapp's attention to it?

A. I took it out, yes, sir.

Q. And how long after you had taken it out with the chisel was it that you called Mr. Knapp's attention to it? [610—549]

A. Why, immediately, as soon as I could see him in the shop.

Q. And who else's attention did you call to it?

A. I don't remember of calling anybody else's attention to it.

Q. You just called Mr. Knapp's attention to the fact that you could take it out with the chisel or file?

A. Yes, sir.

Q. And did you demonstrate it to him?

A. I did.

Q. And at about the middle of February, 1911?

A. Yes, sir.

Q. Did you ever demonstrate that to anybody else?

A. Yes, sir, I did.

Q. To whom?

A. Why, to anyone that happened to come into the shop of Mr. Wilson's.

(Testimony of A. W. Houriet.)

Q. Well, whom do you remember that you demonstrated it to?

A. I don't know the men in particular, whose names I can remember; I don't know them.

Q. What is that?

A. I don't know the gentlemen's names that came in there, buyers of reamers who would come in.

Q. That was subsequent—

A. That was afterwards; it was taken out.

Q. What is that? A. It was afterwards.

Q. I am speaking about this reamer 120; how many times did you take that key out and put it in?

A. Oh, I couldn't say offhand how often I had it in and out; maybe two or three dozen times.

Q. You don't remember of showing it to anybody except Mr. Knapp that you could do it that way?

A. Yes, I remember showing it to other people that come there [611—550]

Q. Well, who?

A. I can't remember their names; I didn't know them; I didn't know them by name; he would call me over to go demonstrate the reamer, to take it apart.

Q. I know; this is 120 I am talking about.

A. This same reamer.

Q. How long was that there after they put this single-piece key in?

A. Well, I should judge in the neighborhood of two or three months, a couple of months, anyway; it was taken in the back of the shop and put on a pair of horses there and when anyone would come in Mr. Wilson would have me go out and demonstrate the

(Testimony of Robert E. Bole.)

reamer, take the cutters out and put the key in.

The COURT.—Now, is there any examination that either of you desire to make in regard to this matter from this witness along this line? Mr. Bole, you take the stand. [612—551]

[Testimony of Robert E. Bole (Recalled by the Court).]

ROBERT E. BOLE, recalled by the Court, testified as follows:

The COURT.—Who was present when you first used a file to get this key out of the reamer 120?

A. Mr. Wilcox, I believe, was present; he was around there; there was quite a few men around the shop backwards and forwards; they were all more or less interested in it, and Mr. Naphas was there.

Q. Well, to whom did you first call attention to the fact that you could get it out with a file?

A. Mr. Houriet.

Q. Mr. Houriet?

A. Mr. Houriet was right there. As I say, he attempted to drive the key in; that was the first time it was attempted to put a single-piece key in the reamer, and he was driving it in when I had gone to grind up this file to get it out, and the light hammer he had in his hand would not put the key in; the tension of the spring would cause it to rebound, to come out, it wouldn't go under the spring, and we used a sledge, and Mr. Houriet was there when we did that; I drove the key in with the sledge; I had tried it or he had tried it with a light hammer in the first place, and then I took the light hammer and I

(Testimony of Robert E. Bole.)

couldn't put it in, and then we took the sledge and the sledge drove it in, and that was on account of the steep taper, and then he was right there after it got through and I took this file that I had ground out and took the key out.

Q. Had you removed this key with any other instrument but a file prior to that time? A. No, sir.

Q. Had you attempted to pry it out with one of these things with a hook on the end of it?

A. No, sir; when the key was finished and ready to be pried out [613—552] the first thing I did was to take one of these old files that was used around for filing up plungers; I broke it in two and took the temper out of the end so that when you hit it with the hammer the steel wouldn't fly; I held it under the wheel until it got cherry red, got a temper on it, and then I took and ground the other end like this tool I had yesterday, and that was the tool I used and that was the first tool used.

Q. When was that?

A. That was about the middle of February, 1913, as near as I remember.

Q. 1911, you mean?

A. 1911; I am not positive, exactly.

Q. Well, the first time you called Mr. Wilson's attention to it you say Mr. Naphas was present?

A. Yes, sir, that was—Mr. Wilson had not come down from his house yet that morning; he wasn't there when we tried—when we put the key in. Just as we got the key in and I had driven it out—I am pretty sure I had driven it out once or taken it out

(Testimony of Robert E. Bole.)

once, and we put it back and Mr. Wilson came along, and Mr. Wilson said in sort of a sarcastic manner, "Well," he says, "you have got it in; now let's see you get it out."

Q. And you say Naphas was there?

A. Naphas was there.

Q. At that time? A. At that time.

Q. Now, when was this.

A. This was about the middle of February, 1911.

Q. Well, that was the first time you had ever taken it out with a file?

A. Yes, sir; the first time it was ever taken out at all.

Q. Was Mr. Houriet there?

A. Yes, sir. [614—553]

Q. Did the key have those offsets in the lower end of it, each end, those little nicks in it as indicated in the drawing here?

A. Heavy brown paper drawing?

Q. Yes, sir. A. No, sir, it didn't.

Q. Didn't have those in it?

A. Didn't have those in it. The corner was broken or tapered, but it didn't have these notches in it.

Q. Those notches were not in the key that you took out?

A. No, sir, I know they were not; if they were ever in that key they were put in there afterwards.

Q. Now, as I understand, Mr. Naphas didn't testify in this interference proceeding?

A. No, sir.

(Testimony of Robert E. Bole.)

Q. Why didn't you have him testify in these proceedings?

A. Well, Mr. Lyon said that it was not necessary. I asked him if he wanted me to go and get Mr. Naphas and he said it was not necessary; he said we had the case won; he said there was not anything to do as he could see, and he said we didn't need him.

Q. When did you first talk to Mr. Naphas about it?

A. The first time I talked to him was the day I went down to the shop there to see him; I recalled that Mr. Naphas was there at that time, and I told Mr. Lyon so, that I had never gone to see Mr. Naphas.

Q. And you didn't interview Mr. Naphas as to what his testimony would be even at that time?

A. No, sir; I asked him what he remembered about it and he told me what he remembered about it.

Q. Now, when was this?

A. That I went down there?

Q. Yes.

A. It was—I think it was the day before yesterday; I think it [615—554] was day before yesterday, or the day before that.

Q. Very recently, anyhow? A. Very recently.

Q. (By Mr. LYON.) Since the commencement of this trial?

A. Yes. I do remember one time that my brother had met Mr. Naphas, and in talking to him, why my brother—

The COURT.—You needn't tell what your brother

(Testimony of E. C. Wilson.)

said. That would be improper evidence. That is all I desire to ask this witness.

Mr. LYON.—Mr. Bole—the whole deposition is in evidence though, isn't it?

The COURT.—Yes.

Mr. LYON.—I have no questions to ask.

The COURT.—Stand down.

Mr. BLAKESLEE.—No question. [616—555]

[Testimony of E. C. Wilson, for Defendants (Recalled in Rebuttal).]

E. C. WILSON, recalled by the defendants in rebuttal, testified as follows:

Direct examination.

(By Mr. BLAKESLEE.)

Q. I show you a paper marked Plaintiff's Exhibit Adams sketch, and ask you if you ever seen it before (handing to witness)?

Mr. LYON.—We object to that as irrelevant and immaterial, and not rebuttal.

Mr. BLAKESLEE.—The witness Adams testified he didn't recollect that; I want to show it in the record, the fact that it was made by Mr. Adams six months ago and he can't remember it, whereas he does remember a sketch made six years ago.

Mr. LYON.—Why didn't you do it on cross-examination of the witness?

Mr. BLAKESLEE.—I merely want to get it in evidence.

Mr. LYON.—You can't impeach the testimony of Mr. Adams this way. When he was on the stand

(Testimony of E. C. Wilson.)

why didn't you offer it?

The COURT.—The paper shows on its face that it is the Adams sketch.

Mr. BLAKESLEE.—It is offered in evidence. your Honor; I just wanted to get it in evidence.

The COURT.—Well, mark it in evidence.

Mr. BLAKESLEE.—All right.

The COURT.—Does that close your case?

Mr. BLAKESLEE.—That closes our case.

The COURT.—All right. Mr. Wilson, who first showed you that this single-piece key could be removed with a chisel or a file? A. Mr. Houriet.

Q. When was that?

A. That was just at the time the reamer was first completed so it could be assembled; it was some time in the latter part of February, 1911; it was about the middle of February, I should [617—556] judge, 1911.

Q. What did Mr. Houriet remove the key with?

A. He removed it with the tang of a file; he had a piece of a file that he picked up off of the floor and put the end in one end of it and pried it out.

Q. That is the first time that you saw that done?

A. That is the first time I ever saw that done.

Q. How had the key been removed prior to that time?

A. We had removed it two or three times with a lever. When the reamer was first assembled we had fastened the key so it could be removed with a lever, but later it was changed over and was one which we had in stock for another purpose, and it was not an

(Testimony of E. C. Wilson.)

easy task to remove the key that way, and it was giving me some little concern, always had from the time I first thought of a single-piece key, and I was sitting in the office and Mr. Knapp came in very much elated about something, and he said, "Wilson," he said, "we don't need that lever to take that key out of that reamer."

Q. Who said that?

A. Mr. Knapp, the foreman, and I said, "Well, how are you going to do it, William?" Well," he says, "come on out and I will show you what Houriet has done." So he took me out to the shop where Mr. Houriet had been working on the reamer, and Mr. Houriet took a file and drove one end of it underneath the key and drove the key out. I saw Mr. Houriet do that many times afterward in demonstrating the reamer to *respective* customers and people who were there interested in oil well tools.

Q. Well, did you ever see Mr. Bole remove it with a file? A. I never did.

Q. When did you commence manufacturing these single-piece keys in the business?

A. May or June of 1911.

Q. May or June, 1911? [618—557] A. Yes.

Q. Now, during the year 1911 were you manufacturing very many of these reamers with that single key?

A. Yes, sir, we made quite a number of them; yes, sir, after we first adopted them we made them regularly.

Q. Made them regularly? A. Yes, sir.

(Testimony of E. C. Wilson.)

Q. And in fact, you abandoned the other style?

A. Yes, sir. We went cautiously at first and found that it worked out so satisfactory that we could certainly adopt it.

Q. And kept that up during 1912, manufacturing these keys right along? A. All the time.

Q. All the time?

A. Yes, sir; are still making them.

Q. Yes. Well, during that time, 1911, the balance of 1911 and 1912, did you manufacture any double key device? A. No, sir.

Q. Did you manufacture any other reamers with other means of fastening?

A. I don't believe we made any other block and screw or double-key type, but we have done so here the last few months.

Q. (By Mr. BLAKESLEE.) Which, during the last few months, if I may ask?

A. I believe in December.

Q. I mean which type?

A. Oh, we made some block and screw type reamers during December, January, February and March of this year.

Q. They were so ordered, were they?

A. They were so ordered.

The COURT.—As I understand, you don't remember any occasion when Mr. Bole and Mr. Naphas were together and removed this key [619—558] from that reamer 120? A. I do not.

The COURT.—That is all. Do you want to ask him any questions?

(Testimony of E. C. Wilson.)

Mr. BLAKESLEE.—No, sir.

Mr. LYON.—Mr. Benjamin, I will have to have from your office a transcript of the testimony in the interference proceedings. This copy is wrong in one of the answers that I want to read to Mr. Wilson, unless Mr. Wilson will—he is familiar, I think, with his testimony, and it will save the Court's time if he will state it.

Mr. BLAKESLEE.—What's the substance of it?

Mr. LYON.—I want to know if it is not a fact, Mr. Wilson, at the time of your giving your deposition in the interference proceedings commencing on May 28th, 1914, and until after our case had been put in in the fall, you did not know and so state it in your testimony that you did not know the name of the man that discovered that the single-piece key could be removed from this reamer Number 120, in the spring of 1911?

The WITNESS.—I don't see how I should testify that way, because I did know; I remember distinctly the circumstance.

Q. You so decidedly testify?

A. I don't know how I could have testified any other way.

Mr. LYON.—To save time, your Honor, of the Court, I will offer, then, the whole of Mr. Wilson's deposition in evidence, and the reporters now have it.

Mr. BLAKESLEE.—We object to encumbering this record with that whole deposition.

The COURT.—There have been several depositions read in evidence, and I think any statement

that the defendant made is admissible in evidence. Now, Mr. Lyon claims that there is a part there that is contradictory of his present testimony. [620—559]

Mr. BLAKESLEE.—We invite a comparison, if the Court will wait until the reporter—

The COURT.—I won't leave the case open for that purpose. Upon the argument of the case—now, we will have this understood—upon the argument of the case I will allow Mr. Lyon to read the questions and answers that relate to this particular thing.

Mr. BLAKESLEE.—Yes, sir; we have no objection.

The COURT.—That is understood, gentlemen.

Mr. LYON.—It may be repeated in two or three places.

The COURT.—Well, whatever it is, any questions and answers that relate to that controversy may be read in the argument and become part of the record.

Mr. BLAKESLEE.—We have no objections.

The COURT.—Now, I understand this case is closed, with the exception of introducing some records of the Patent Office which either side may desire to introduce, and this question that is just now raised. How long will it take to argue this case, gentlemen?

Mr. LYON.—If your Honor please, I would like to have a statement of what records are to be introduced here, so there will be no dispute hereafter. I want to know what to meet, that is all.

The COURT.—Yes, sir, you are entitled to that.

Mr. BLAKESLEE.—There will be the certified

copy of the Wilson application.

Mr. LYON.—That is in evidence now.

Mr. BLAKESLEE.—No, that was reserved, that offer, until the other copy had come; and the certified copy of the decision rendered in the Patent Office in the interference proceeding, involving the patent in suit; and the application of Mr. Wilson. Those are the only records.

Mr. LYON.—Does that complete all you want to offer? [621—560]

Mr. BLAKESLEE.—That will complete our proof.

Mr. LYON.—We will offer simply the evidence that the appeal has been taken from that decision.

The COURT.—(After discussion.) I expect to return from San Diego and be here two weeks from now, two weeks from next Monday, and I will hear this argument in this case on Monday or Tuesday after I return from San Diego. It may be that I will be disappointed in getting back in that time, in which event it will go over for three weeks. This will be the first case I will consider in Los Angeles.

Mr. BLAKESLEE.—The first Monday or Tuesday subsequent to your return?

The COURT.—Yes, sir. [622—561]

April 12, 1915. 10 o'clock A. M.

Mr. BLAKESLEE.—I think, your Honor, the question of the offering of the certified copies of the records in the Patent Office is first in order.

The COURT.—Have you seen those, Mr. Lyon?

Mr. LYON.—No, sir. I will ask, what is the purpose of the offer of the certified copy of the file-

wrapper and contents?

Mr. BLAKESLEE.—Simply under the decision to show that the record in the Patent Office with respect to these copending applications—all of the Patent Office records under numerous decisions in interference matters are considered by the Court on these questions of priority. Where those questions of priority have been determined by the Patent Office and, as we are claiming, the lack of originality as well as lack of priority in the complainant Bole, and also under the specific defense in Section 1020 of the Revised Statutes, that the patent is surreptitiously obtained, I want to show actual identity of the subject matter of the two applications. There is in evidence already a certified copy of the record showing that the interference was declared between the issued Bole patent in suit and the copending application of Wilson. But I wish to reinforce that showing by submitting this certified copy of the application itself as tending to show identity of invention. We claim that the controversy in the Patent Office was one with respect to priority and originality concerning identical subject matters. It may be that that offer is not absolutely necessary, but I think to complete the record under that defense it is proper. The mere declaration of the interference raises a presumption of identity of subject matter, but I wish to make that a positive portion of the record in that manner.

Mr. LYON.—Our objection to it is that it is incompetent, [623—561] irrelevant and immaterial for any purpose in this case. We are not here to

try the question of what documents one of these defendants has filed in the Patent Office or in that proceeding. The patent has issued. The defense here is that this man Wilson is the inventor. That question is to be determined upon the testimony taken in the usual form, with an opportunity to cross-examine the witnesses. An application for a patent filed, and filed as shown, subsequently to the application of Mr. Bole, can have no bearing on this controversy as made by the pleadings here; and the question of whether or not there is an interference proceeding pending in the Patent Office is entirely collateral. It is for this Court to determine the issues of this case independent of what records may exist in some other tribunal and which is not final res adjudicata between the parties.

Mr. BLAKESLEE.—We have gone exhaustively into that and take square issue, and we shall show that this Court, while not absolutely controlled by the decision of the Patent Office with respect to priority and originality, is to adopt that finding of the Patent Office unless convincing proof is shown to the contrary.

The COURT.—The objection is overruled.

Mr. LYON.—And with respect to the offer of the certified copy of the decision of the Examiner of Interferences, we object to that upon each of the grounds stated in the objection to the proceeding exhibit and upon the further ground that it appears from the said exhibit itself that that is merely a copy of a decision. It is not a copy of a judgment rendered; and that no judgment has, in fact, been ren-

dered in that proceeding.

The COURT.—That is, it is just an opinion?

Mr. LYON.—It is just an opinion and it is not shown that any judgment has been entered or that no appeal has been taken. And in connection with that objection I call your Honor's attention [624—562] also to a certified copy from the United States Patent Office showing that from this decision an appeal was taken, this being the lowest trial tribunal, and that that appeal has been set for hearing on the 7th of May, 1915.

The COURT.—How can you have an appeal without a decision?

Mr. LYON.—There is a decision but no judgment.

Mr. BLAKESLEE.—The decision is of priority, but there is no entry of judgment. And if that appeal had not been taken a patent would have issued to Wilson. The fact that an appeal has been taken is immaterial. It is the adjudication of the Patent Office and as the law is laid down—

The COURT.—I don't think the fact of taking an appeal has any material bearing upon the receipt of this in evidence. The objection is overruled.

Mr. LYON.—In that connection I call your Honor's attention to the fact that I understand counsel has now offered all of the records that he desires to offer in connection with that Patent Office proceeding.

The COURT.—That is as I understand it.

Mr. BLAKESLEE.—Yes; those two certified copies.

Mr. LYON.—Now, I wish to offer in evidence a

certified copy from the United States Patent Office showing that an appeal has been taken and is pending in this interference proceeding.

Mr. BLAKESLEE.—We in turn object to that as immaterial. There has been an adjudication in the Patent Office and that adjudication stands until there is a reversal. That is the ruling of the Patent Office. It is another forum. And whatever the procedure may be on that appeal is immaterial with respect to the effect of the decision rendered upon the issues of this case and the consideration which the decisions of the Supreme Court and the other Federal courts say is to be given any finding of the Patent Office. [625—563]

The COURT.—The objection will be overruled.

(The two certified copies offered in evidence by Mr. Blakeslee are marked respectively, Defendant's Exhibit 16 and 17.)

Mr. LYON.—The last exhibit having been received in evidence, I now move to strike out from the record and exclude from consideration by this Court the alleged decision by the Examiner of Interferences, on the ground that the same is shown to not have become final, and that it is subject to review in the Appellate Court. And in that connection I want to call your Honor's attention to the decision—and it is a general rule—of Judge Hanford, in the case of Bowers Company vs. the New York Company, 77 Federal, 980, page 983. (Reads decision.)

(Discussion.)

The COURT.—The motion will be overruled. I

will reserve the question however, during the trial of the case.

Mr. LYON.—Now, as to the next matter for your Honor to determine, namely, with regard to this Heber deposition, I have one or two further authorities. I am not going to take the time of the Court to read those that I read before, but simply those further ones. (Reads decisions.)

Mr. BLAKESLEE.—Our position is that the trouble with counsel's whole argument is that he attempts to bring something in here which is not a deposition. Now, old rule No. 69, which provides for taking these proofs, provides for taking them out of court within certain times. The proofs in Patent cases were not taken in court under the old equity rules. Now they are to be taken in court, unless as rule 47 says, "the Court, upon application of either party when allowed by statute, or for good and exceptional cause for departing from the general rule, to be [626—564] shown by affidavit," etc. In other words, it is not a deposition unless it is taken in accordance with this rule. "All depositions taken under the statute or order of the Court shall be taken as follows:—" Now, the only two ways they could take something which would be a deposition, one way would be by following the statutes. The other way would be by obtaining an order of the Court. But both of those ways must parallel the third way, namely, the way provided by the rules. Now, had we attended the taking of the deposition or acquiesced in the taking, or countenanced its taking, we would be doubtless in a singular position

before the Court at this hour. We stayed away from the taking of that deposition purposely. We did not wish to countenance it in any respect and we did not wish the argument to be made that we were there and ready and could have cross-examined. Your Honor has stated that possibly we have been remiss within considerations of equity in not moving earlier to suppress this deposition. Our contention is that we moved at the proper time. In other words, when it was offered. We believe that, assuming that that was not the most perfect equity or, resolving equity into the consideration of fairness, that it is not good equity for a man to depart from the equity rules. That is what counsel wishes to do. We believe that we know why he did that—this is off of the record entirely—he did not wish that witness produced here—

Mr. LYON.—I object to counsel's remark.

The COURT.—Remarks outside of the record will have no influence on the Court, and counsel ought not to make them.

Mr. BLAKESLEE.—The point is they did not produce him. He was in California not long ago and he was not here at the time of the trial, and we say there has been no deposition taken. We might say that if the Court insists that the complainants will be improperly injured by barring this deposition, that the suggestion [627—565] might be made that we be permitted to read the deposition of the witness Heber taken in the interference. That would be, it seems to me, a fair swap on this question. But we do not think that even that offer is

necessitated in view of the mandatory terms of the rules. The only way that such a deposition can be a deposition would be by taking it under the rules. As I say, it was not negligence that caused us to stay away, but it was caution.

The COURT.—I think the proper practice is to make a motion to suppress the deposition. I don't think that the parties by staying away purposely when they have notice to take the deposition, is proper practice. The objection to the deposition is overruled.

Mr. BLAKESLEE.—May we ask permission to read the deposition of the witness on cross-examination taken on the interference?

The COURT.—I don't think you are entitled to it.

Mr. BLAKESLEE.—The decisions here show that the records of the Patent Office are to be considered, where this question is passed upon and within the discretion of the Court the witness's testimony may be considered.

The COURT.—Was that deposition taken in the interference proceeding?

Mr. BLAKESLEE.—Yes, but his testimony does not exactly accord with the present testimony.

The COURT.—You mean in this deposition?

Mr. BLAKESLEE.—Yes.

Mr. LYON.—He had no opportunity to explain the differences.

The COURT.—If you had cross-examined him and it did not agree, you might have shown the disagreement in a proper way. Read the deposition, Mr. Lyon.

(Mr. Lyon thereupon reads the deposition of Roy L. Heber, as follows:) [628—566]

“In the United States District Court, Southern District of California, Southern Division. Robert E. Bole and Edward Double, Complainants,—vs—Wilson & Willard Manufacturing Company and Elihu C. Wilson, Defendants. In Equity B-19. Deposition of Roy L. Heber taken on behalf of complainants in the above-entitled suit, pursuant to the annexed notice, said deposition being taken under Rule 54 of the Equity Rules and as provided by Sections 863, 865, 866 and 867, of the Revised statutes of the United States; said deposition being taken at the office of Frederick S. Lyon, 503-508 Merchants Trust Company Building, in the City of Los Angeles, California, before I. Benjamin, a notary public within and for the county of Los Angeles, state of California, commencing at the hour of 10:30 A. M. Present, Frederick S. Lyon, Esq., on behalf of complainants; no appearance on behalf of defendants.

[Deposition of Roy L. Heber, for Plaintiffs.]

“ROY L. HEBER, a witness produced on behalf of complainants, being first duly sworn according to law, testified as follows:

Direct examination by Mr. LYON.

Q. 1. Please state your name, age, residence and occupation.

A. My name is Roy L. Heber; residence, Maricopa, Kern County, California; age, forty years; I will be a farmer as soon as I get to Illinois.

Q. 2. Please explain what you mean by the last

(Deposition of Roy L. Heber.)

part of your preceding answer 'as soon as I get to Illinois.'

A. My wife and family are at her father's place at Hudsonville, Crawford County, Illinois. Her father has given us 55 acres of land to farm and is going to help us build a home and equip the farm.

Q. 3. And when do you expect to leave for Hudsonville, Illinois?

A. I have engaged my berth for tonight at 9 o'clock on the Santa Fe.

Q. 4. Have you any present intention of returning to California? A. Yes, sir.

Q. 5. When?

A. I just can't say when I expect to return. We still have our property here.

Q. 6. You don't know whether you will be here in March of this year or not?

A. No, I don't think [629—567] I will be.

Q. 7. Have you ever in any capacity been connected with the drilling of oil wells or in the oil-well business? A. Yes, sir.

Q. 8. To what extent?

A. Outside of the time that I have farmed, I have had a lifetime experience following the gas and oil and water well drilling business.

Q. 9. Are you acquainted with Robert E. Bole, one of the complainants in this suit? A. Yes, sir.

Q. 10. Approximately how long have you known Mr. Robert E. Bole?

A. I have known Robert E. Bole since 1891.

Q. 11. Did you ever at any time have any con-

(Deposition of Roy L. Heber.)

nection with the Sunset-Monarch Oil Company at Maricopa, California? A. Yes, sir.

Q. 12. In what capacity were you connected with that company?

A. I went to work for the Monarch-Oil Company as driller and was promoted to general foreman.

Q. 13. In connection with that company's business did you at any time have any business connection with said Robert E. Bole? A. Yes, sir.

Q. 14. Please state what it was.

A. At that time we were having trouble with our machine-shop. The foreman of the shop was not giving satisfaction and I complained about it to the company and they instructed me to put a man in there that would be satisfactory. I sent for Mr. Bole to come up and take that position.

Q. 15. What previous knowledge had you had with Mr. Bole's qualifications for such position?

A. I knew Mr. Bole had had experience in his father's shop at Pittsburg, Pennsylvania, where Mr. Bole's father ran a fishing-tool manufacturing establishment.

Q. 16. What do you mean in your last answer by the 'fishing-tool manufacturing establishment'?

A. Fishing tools are tools used in recovering tools that are lost in wells.

Q. 17. In the drilling of oil wells?

A. In the drilling of oil, gas and water wells.

Q. 18. And when was it that you sent for Mr. Robert E. Bole to take charge of the Sunset-Monarch shop at Maricopa, California?

(Deposition of Roy L. Heber.)

A. I think I wrote to Robert E. Bole about the middle of September, 1908, and I think I got a reply to the letter in a day [630—568] or so after that, and Mr. Bole came up to the shop on or about the 17th or 18th of September, 1908.

Q. 19. Did Mr. Bole take charge of the shop at that time? A. No, sir.

Q. 20. Please state the circumstances.

A. Mr. Segur, vice-president and manager of the Sunset-Monarch Oil Company at that time, was there at the shop with a man by the name of Converse on the same day that Mr. Bole arrived there. He also had a man to take the position as foreman of the shop after he had already instructed me to get somebody.

Q. 21. How long did Mr. Bole remain there?

A. I think he left Maricopa the next day.

Q. 22. Did you have any conversation of any kind with said Robert E. Bole while he was in Maricopa, California, at that time in regard to oil well drilling or fishing tools? A. Yes, sir.

Q. 23. Please state what it was and how such conversation came to be had.

A. Mr. Segur decided to put Mr. Converse in charge of the shop and not Mr. Bole, the man that I had sent for. I gave Mr. Bole an order for a 9 $\frac{5}{8}$ inch Wilson under-reamer and a 10-inch casing spear.

Q. 24. Did you have any conversation with Mr. Bole about this under-reamer at the time of giving him the order? A. Yes, sir.

Q. 25. Please state that conversation.,

(Deposition of Roy L. Heber.)

A. I complained about the Wilson under-reamer giving trouble with the pins. The pins had to be drilled out, which was bothersome. That was the block and screw type. I talked that over with Mr. Bole and he said he could improve it if I would give him an order; that he would guarantee to send an under-reamer that would not give trouble, and I gave him an order for the under-reamer and for a 10-inch casing spear. We sat down in the shop and I asked Mr. Bole what kind of an improvement he had in mind which would avoid the troubles we had had with the pins which held the block in place, and he sketched a key while sitting in the shop, and said that that would give satisfaction and that we would **not have any trouble with [631—569]** the under-reamer fitted with this key. The key was an ordinary gib-key and the under-reamer was to be provided with a slotted mandrel or tee bar, the body of the under-reamer having a slot through which the key could be pushed into place to seat in the central bore of the under-reamer, and the tee bar or mandrel could work up and down on this key by reason of the slot in the tee bar. The spring which surrounded the mandrel or tee bar would bear on the top of the key. The wing or projection of the key sticking down into the bore of the under-reamer so that the shoulders at each end of the wing would hold the key from sliding out. The tension spring bearing on the top of the key would hold the key in place, the upper end of the spring bearing against a nut on the end of the slotted tee or mandrel. This key, Mr. Bole said,

(Deposition of Roy L. Heber.)

could be readily removed by simply prying up one end and driving the key out. Mr. Bole made a sketch of the key at that time when he was giving me this explanation. My recollection is that that sketch was made on a piece of paper with a lead pencil.

Q. 26. Do you know what became of this sketch?

A. I do not. I don't think it was kept.

Q. 27. Could you reproduce for us such sketch?

A. I don't know whether I can give an exact drawing of it, but I will give you the way it appears to me now. This is the way it looks to me. (Makes a sketch.)

Mr. LYON.—The sketch just made by the witness is offered in evidence and marked 'Bole's Exhibit Heber Sketch.'

Q. 28. What was the particular reason for your desiring to give Mr. Bole an order for these tools at that time?

A. When Mr. Segur instructed me to turn Mr. Bole down and put Mr. Converse in as foreman, he said it would be all right to give Mr. Bole an order for a Wilson under-reamer and a casing spear and to allow him \$35 expense money.

Q. 29. You mean as compensation for the time he had lost? A. Yes, sir.

Q. 30. You gave testimony in the interference [632—570] proceeding pending in the United States Patent Office, No. 37,126, between Elihu C. Wilson and Robert E. Bole, did you? A. Yes, sir.

Q. 31. After the shop of the Sunset-Monarch Oil Company was placed in charge of this other man,

(Deposition of Roy L. Heber.)

Converse, did you pay any particular attention to said shop?

A. Not very much after that; no, sir.

Q. 32. Why not?

A. Mr. Converse was not a practical oil company machinist. He had not had but little experience, if any, in the oil well tool business.

Q. 33. And how long did you remain with the Sunset-Monarch Oil Company thereafter?

A. I was handed my check on Christmas day, December 25, 1908, but I stayed in my quarters until January 1.

Q. 34. Why did you leave the employ of the company at that time?

A. I was asked to resign by Mr. Segur.

Q. 35. Did that request for your resignation have anything to do with the employment of Mr. Converse?

A. I was never given any direct reason for asking me for my resignation. When Mr. Segur asked me to resign I told him he had employed me and he could discharge me, and I did not send in any resignation.

Q. 36. Was the work of Mr. Converse as foreman of such shop satisfactory to you as general foreman of such Sunset-Monarch Oil Company during the time that you remained with such company after Mr. Converse was put in charge of its shop?

A. Decidedly not.

Q. 37. Have you in any manner any interest whatever in this litigation? A. Nothing whatever.

Q. 38. Do you know where Mr. Robert E. Bole

(Deposition of Roy L. Heber.)

went upon leaving Maricopa in September, 1908, at the time that you have referred to in your testimony?

A. I received a postal card from Mr. Robert E. Bole dated at Coalinga, instructing me to forward his mail to Coalinga, California, and my recollection is that that postal card was dated September 19, 1908. I received it on September 20, 1908. This postal card was referred to in my deposition in said interference.

(Signed.)

ROY L. HEBER.

[633—571]

“State of California,
County of Los Angeles,—ss.

“I, I. Benjamin, a Notary Public within and for said county and state, do hereby certify that the foregoing deposition of Roy L. Heber was taken before me in the above-entitled suit at the time and place in the foregoing record set forth; that before giving such deposition said Roy L. Heber was by me duly sworn to testify the truth, the whole truth and nothing but the truth, according to law; that the parties to said suit were represented by counsel as appears in the foregoing record thereof; that said deposition was taken by me and reduced to typewriting and read over by the said Roy L. Heber and signed by him in my presence.

“I FURTHER CERTIFY that I am not interested in the said suit or the subject matter thereof either directly or indirectly, nor am I connected by blood or marriage with any of the parties to said suit.

“IN TESTIMONY WHEREOF I have hereunto

set my hand and affixed my official seal this 13th day of February, 1915.

(Signed.)

I. BENJAMIN,

Notary Public in and for said County and State.”

[634—572]

Mr. LYON.—(Referring to the sketch mentioned in the deposition.) The witness made that sketch, and it is offered in evidence.

Mr. LYON.—Now, I understand that with the exception of certain extracts from Mr. E. C. Wilson’s testimony, this closes the entire testimony in the case, and I don’t know whether the Court desires me to read those—they are short—about three or four answers—into this record at this time.

The COURT.—Yes, read it.

Mr. LYON.—I refer to question 138 on direct examination of E. C. Wilson: (Reading:)

“Q. 138. Now, how does this Bole patent disclosure compare as to the one-piece key shown therein, as in figure 7, with the one-piece key which you have testified about in connection with your conception of an improved reamer on or about January 26, 1911, your disclosure of the improved reamer to others of about February 3, 1911, and the two reamers which you say you had made during February, March and April, 1911, as concerns the construction of the said single-piece key and the inter-relation between the same and the spring and other parts of the reamer?

“A. The key, so far as its general appearance is concerned and general outline, is absolutely the same as the keys we made for those two reamers with the exception, possibly, that it does not show a little notch

at the lower edge of the key, which notches were near the ends of the key. When we first made this key I thought it was necessary to have a notch at each end of the key, and just underneath the edge of it, for the purpose of applying a tool to pry the end of the key upwardly and at the same time draw the key outwardly. To do this it was necessary to have this tool fit in the notch, as we supposed; but we later found that this key could be removed by merely driving a pointed tool underneath one end of the key, raising it up to such a point [635—573] that the downwardly projecting shoulder at the lower edge of the key was removed from the bore of the reamer body and could be driven out from the opposite end of the key. That dispensed with any necessity of putting that notch in the lower edges of the key, and, consequently, we abandoned that notch; and the key which we have made for all these years and which we are now making, abandoned that notch just the same as this key does which is shown in the drawing by the R. E. Bole patent. In other words, the drawing in the R. E. Bole patent is an exact copy of the key we have been making for three years.”

Mr. LYON.—Question and answer 333 on cross-examination. (Reading:)

“Q. 333. (By Mr. BLAKESLEE.) Counsel for Bole has insinuated or implied that I have in some manner interfered with your testifying uninterruptedly or fully with respect to the disclosure which you have testified you made to Mr. Bole and the other three persons, on or about the 3d day of February, 1911. Now, have you anything further to say what-

soever with respect to what was said or done at such time of disclosure when Mr. Bole was present, and, if so, please state fully?

“A. As I have previously testified, we had been having some trouble with the block and screw type of Wilson’s under-reamer, as the screws would sometimes stick and cause considerable trouble to remove them preparatory to the removal of the cutters of the under-reamer. We had formerly manufactured a Wilson under-reamer known as our double-key type, and our key device consisted of two-wedge-like portions. But the trouble we had with that under-reamer was the breaking of the slotted tee. At the time the slotted-tee type of reamer was first adopted by me, the drawings for it and also the proportioning of the tee and different parts was left to a draughtsman, I having instructed him to so proportion the tee as to make it as large and as heavy as he [636—574] possibly could. I had supposed that the tee was as heavy and as strong as he could possibly design it to put in the reamer. Consequently the breakages that occurred to it were the occasion of changing to the block and screw type. We had known, of course, that the double-key type was more convenient and caused less trouble when removing the cutters or replacing them in the reamer than the block and screw type. Still, its weakness caused us to use this block and screw type instead. Now, on January 28, 1911, we received an order from the Pacific Iron Works of McKittrick for a 12 inch or 12½ inch slotted tee for a Wilson under-reamer. This again very forcibly called to my mind the fact that

this slotted-tee type of under-reamer had some advantages which we did not have with the block and screw type. It suddenly occurred to me that possibly that draughtsman had not proportioned the tee as heavily as could be made, and consequently I went to a draughting-board and drew one, proportioning it as heavily as I could see could be used and was surprised to find that it was possible to use a slotted tee with at least twice the strength of the ones we had formerly used. After satisfying myself that such was the case, and after checking my drawings up with my brother who is also a draughtsman, and determining conclusively that a heavier type could be used, I decided that it was advisable to change to the slotted-tee type of a heavy design. Now, we had had some trouble with the double key or double-piece key, and I concluded that if I could overcome the troubles of the key as thoroughly as I saw I could do with the slotted tee, that we would have, what to my mind seemed to be, a perfect reamer. So I set about to design a single-piece key. I made various sketches and drawing of tees as the different forms or shapes would occur to my mind, and for three or four days, or two or three days, gave them a great deal of thought. One evening I decided to obtain the opinion of some of the men in [637—575] the shop in regard to the relative merits of the different types of keys which I had evolved in my mind. As I have previously testified, I called Mr. Willard and Mr. W. W. Wilson and Mr. C. E. Wilcox and Mr. R. E. Bole, and it seemed to me that I had Mr. Knapp in that conference also. Mr. Knapp is our foreman, and

was so at that time. I showed the different types of keys, one of which required two plugs, or threaded screws, in the body, to hold it in place; another type required only one plug, and still another type—I am not so sure but what I had two different types of keys that could be used which did not require a threaded plug to hold the keys in place. That key or those keys seemed to have the most merit, because it seemed to overcome one of the chief objections to the double-key type as previously used. I was explaining to these gentlemen how these different keys could be put into the reamer and how they could be taken out; and then I explained that these other keys could be put in the reamer, but I couldn't see how to take them out of the reamer. It was easy enough to see how they could be put in place, but how to remove them I was unable to solve. Mr. Bole at that juncture said: 'Pry it out at one end.' I said: 'That is a natural statement to make, but I don't believe there is room to pry it out.' He said that there was room enough. I said it would probably require some special kind of a tool or lever; according to my idea it would have to be pried upwardly at one end and outwardly at the same time, and then it was that Mr. Bole said he could devise a tool which would remove that key. Now, these gentlemen all agreed that the single-piece key was the better type, and it was a question whether or not the key could be used conveniently. That is, whether it could be placed in the reamer and also removed. I thought the matter over some little time and finally concluded to make up an under-reamer of the new design which I had just

worked out. We had an 8-inch under-reamer in stock, and I made out an order [638—576] (which order has heretofore been revealed in my testimony) to change that reamer over—I think that reamer was No. 120—to this new type of slotted tee with a single key. While our workmen were changing this reamer over I noticed Mr. Bole was working on something personally at the bench and around through the shop, but it did not occur to me at the time just what he was doing. I have learned that he was then manufacturing or designing and preparing to manufacture this special tool which he said he could devise for the purpose of removing that key. While he was busy designing that tool one of our workmen one day, in assembling this reamer with the new style of key, instead of using some special tool to pry the key upwardly and outwardly discovered that by driving a wedge-shaped tool underneath one end of the key it pried it up to a sufficient position to enable him to drive the key outwardly from the opposite end. I believe the tool he used at that time was merely the pointed end or handle end of a file. That immediately obviated all the difficulty that we expected to encounter in removing this key, and it dispensed with the necessity of any special tool for the purpose of its removal, and what that tool which Mr. Bole was at that time designing for the purpose of removing this key, I have never learned. He has been that careful not to divulge any of his inventions to me.”

Mr. LYON.—Question 633 on cross-examination and answer. (Reading:)

“Q. 633. I now show you question No. 67 asked

you on direct examination, and your answer thereto, and particularly call your attention to the commencement of a new sentence with the words 'And a very funny thing occurred,' at which point, when giving such answer, you were interrupted by your counsel. Please read this question and answer, and then state what incident or incidents [639—577] it was to which you referred at that time.

"A. I started to say, when I used the words 'A very funny thing occurred' that after I had made my sketch of this key and turned it over to the foreman to manufacture the key, and in which sketch were provided notches for engagement of a tool for the purpose of prying the key upwardly and outwardly, and I believe that we had even made the key in that manner and were using it in this reamer No. 120, and on several occasions took the reamer apart and put it together again for the purpose of showing it to oil men and other men who were interested in the under-reamers—one day one of our workmen instead of using this tool or lever which we had devised for prying this upwardly and outwardly, merely drove the pointed or handle end of a file underneath one end of the key and it pried the key up far enough to disengage the shoulder from the bore of the reamer body, making it possible to drive the key outwardly from the opposite end. This was a simple contrivance and something that I did not think was possible and immediately dispensed with any necessity for providing the key with those notches at the lower end, and also dispensed with any necessity of Mr. Bole perfecting this tool, whatever it was, that he was devising for

the purpose of removing this key. I heard nothing further about the tool."

Mr. LYON.—He also says in rebuttal, in his answer to question 7, on rebuttal, on page 755 of the printed record:

"I myself changed over a lever which we had in stock, and so designed the key that it could be removed with the lever. This lever was abandoned because Mr. Houriet discovered that the key could be removed by simply driving a wedge-shaped tool underneath one end of the key, which would pry the key up into a position which would enable the operator to drive it out from the opposite side of the reamer. That is all that was ever said by Mr. Bole, and all he ever had to do with the invention of the lever, or anything [640—578] he had to say in regard to the key."

The COURT.—Is that all the evidence?

Mr. LYON.—That is all I desire to read.

The COURT.—I believe you have agreed upon the time in which to argue the case.

Mr. LYON.—I believe we have. Two hours and a half on each side. Is there anything else, Mr. Blakeslee?

Mr. BLAKESLEE.—I don't know of anything.

The COURT.—It seems to me Mr. Blakeslee should have the opening and closing.

Mr. LYON.—I think in view of the facts it should probably be that way.

The COURT.—I think Mr. Blakeslee ought under the circumstances to fully open his case.

(Argument by counsel thereupon follows:) [641—579]

Tuesday, April 13, 1915; 10 o'clock A. M.

(Argument by counsel for defendant having been completed.)

The COURT.—In this case on trial I do not care to hear any further argument on the subject. I have carefully considered and I am thoroughly convinced and do not need any further argument or evidence to convince me that Bole invented this key and is justly entitled to a patent. If there had not been any patent issued in the case, or if the patent had been issued to the defendant, I should have decided this case in favor of Bole. There has been a good deal of criticism indulged in concerning some of these witnesses who have testified in favor of Bole, particularly Adams and Heber. I do not see any necessity for their being criticised. If a man wants to fix up evidence, it seems to me that he could fix up evidence more material than those witnesses were able to testify to. And in the same way in regard to this exhibit that has been introduced. If Mr. Bole was wanting to fix up evidence for the purpose of perjuring himself and to have other people perjure themselves, he would have gotten evidence that was more material. Of course, these are material in a way, but they are not in any sense controlling. Now, Mr. Bole has been criticised for not being industrious and active in his application for a patent. Nothing was done with this thing from the time he conceived it in his mind and suggested it to these witnesses till he apparently wrote a letter to Mr. Willard about it in 1911. He was not in the business of manufacturing reamers. He was not in a situation

to put it into execution. According to the evidence, as I view it, he applied to his associates to put this key into use. Of course, until it was tried out, it would be nonsensical to apply for a patent. [642—580] He had no opportunity to apply for a patent, associated as he was with Wilson and Willard, unless they would try it out. I think that entirely excuses his delay down to 1911, from the time this key was invented or put into practical use, until the patent was applied for. I think Wilson was as negligent as Bole in that regard. He was more interested in it probably if he were the inventor than Bole was. He does not make any explanation why he waited nearly two years to apply for a patent. That letter that Bole wrote to Wilson when he got into the difficulty, it seems to me, is the most natural thing in the world for him to do. What it says we can all accept as absolute truth. That is to say, that he wrote the letter and made these claims. And what he claimed in the letter was the most natural thing for him to do if he was the inventor of this key. I think it was a very unnatural and unusual thing for Mr. Wilson to do, if he claimed to be the inventor of that thing, to make a settlement with Bole without including in that settlement the controversy concerning the key. It was very unbusinesslike and very unnatural. I have not the slightest doubt about how to decide this case and I will decide it in favor of complainants. [643—581]

*In the United States District Court Within and for
the Southern District of California, Southern
Division.*

No. B-19—IN EQUITY.

ROBERT E. BOLE and EDWARD DOUBLE,
Complainants,

vs.

WILSON & WILLARD MANUFACTURING
COMPANY and E. C. WILSON,
Defendants.

State of California,
County of Los Angeles,—ss.

LEO LONGLEY, being duly sworn, deposes and says: That he is a shorthand reporter, with offices in the International Bank Building, Los Angeles, California; that he reported the proceedings on the trial of the above-entitled cause; that the foregoing is a full, true and correct record, made by himself stenographically and written out in typewriting, under his directions, by Julia Iserloh, Bertha M. Lippincott and Ora Weishaupt, of the proofs taken on behalf of both parties in the above-entitled cause in equity, and of the proceedings had in connection therewith, being the complete testimony of Robert E. Bole, Harry Naphas and August F. Adams, witnesses on behalf of Complainants, and of E. C. Wilson, Wm. G. Knapp, Chas. E. Wilcox, W. W. Wilson, A. G. Willard, Wm. H. Fahnestock, Albert W. Houriet, E. F. Grigsby and Fritz R. Rydgren, witnesses on behalf of the Defendants, taken in said cause, all in

open court, before the Honorable Oscar A. Trippet, and commencing on the 23d day of March, 1915, at the hour of ten o'clock A. M., and concluding upon the 27th day of March, 1915, at the hour of twelve o'clock, noon; that Complainants were represented by Frederick S. Lyon, Esq., [644] their solicitor and counsel, and Defendants were represented by Raymond Ives Blakeslee, Esq., their solicitor and of counsel, and Frederick S. Stephenson, Esq., of counsel for defendants.

LEO LONGLEY,

Subscribed and sworn to before me this 21st day of April, 1915.

[Seal] NINA W. BUDDECKE,
Notary Public, Los Angeles County, California.
[645]

*In the United States District Court Within and for
the Southern District of California, Southern
Division.*

No. B-19—IN EQUITY.

ROBERT E. BOLE and EDWARD DOUBLE,
Complainants,

vs.

WILSON & WILLARD MANUFACTURING
COMPANY and E. C. WILSON,
Defendants.

State of California,
County of Los Angeles,—ss.

I. Benjamin, being duly sworn, deposes and says:
That he is a shorthand reporter, with offices in the

International Bank Building, Los Angeles, California; that he reported the proceedings on the trial of the above-entitled cause; that the foregoing is a full, true and correct record, made by himself stenographically and written out in typewriting, under his directions by Julia Iserloh, Bertha M. Lippincott and Ora Weishaupt, of the proofs taken on behalf of both parties in the above-entitled cause in equity, and of the proceedings had in connection therewith, being the complete testimony of Robert E. Bole, Harry Naphas and August F. Adams, witnesses on behalf of Complainants, and of E. C. Wilson, Wm. G. Knapp, Chas. E. Wilcox, W. W. Wilson, A. G. Willard, Wm. H. Fahnestock, Albert W. Houriet, E. F. Grigsby and Fritz R. Rydgren, witnesses on behalf of the defendants, taken in said cause, all in open court, before the Honorable Oscar A. Trippet, and commencing on the 23d day of March, 1915, at the hour of ten o'clock A. M., and concluding upon the 27th day of March, 1915, at the hour of twelve o'clock, noon; that Complainants were represented by Frederick S. Lyon, Esq., [646] their solicitor and counsel, and Defendants were represented by Raymond Ives Blakeslee, Esq., their solicitor and of counsel, and Frederick S. Stephenson, Esq., of counsel for Defendants.

I. BENJAMIN.

Subscribed and sworn to before me this 21st day of April, 1915.

Notary Public, Los Angeles County, California.
[647]

[Complainants' Exhibit "A"—Letters Patent No. 1,080,135, Issued to Robert E. Bole.]

No. 1,080,135. Compl's Exh. "A." U. S. District Court, So. Dist. of Cal., So. Div. No. B-19-Eq. Filed Mar. 23, 1915. Wm. M. Van Dyke, Clerk. Leslie S. Colyer, Deputy.

THE UNITED STATES OF AMERICA to All to Whom These Presents Shall Come:

WHEREAS, Robert E. Bole, of Los Angeles, California, has presented to the COMMISSIONER OF PATENTS a petition praying for the grant of Letters Patent for an alleged new and useful improvement in UNDER-REAMERS, he having assigned one-half of his right, title, and interest in said improvement to Edward Double, of Los Angeles, California, a description of which invention is contained in the specification of which a copy is hereunto annexed and made a part hereof, and has complied with the various requirements of Law in such cases made and provided, and

WHEREAS, upon due examination made the said Claimant is adjudged to be justly entitled to a patent under the Law.

Now, therefore, these Letters Patent are to grant unto the said Robert E. Bole and Edward Double, their heirs or assigns for the term of seventeen years from the second day of December, one thousand nine hundred and thirteen, the exclusive right to make, use and vend the said invention throughout the United States and Territories thereof.

IN TESTIMONY WHEREOF, I have hereunto set my hand and caused the seal of the PATENT OFFICE to be affixed at the City of Washington this second day of December, in the year of our Lord one thousand nine hundred and thirteen, and of the Independence of the United States of America the one hundred and thirty-eighth.

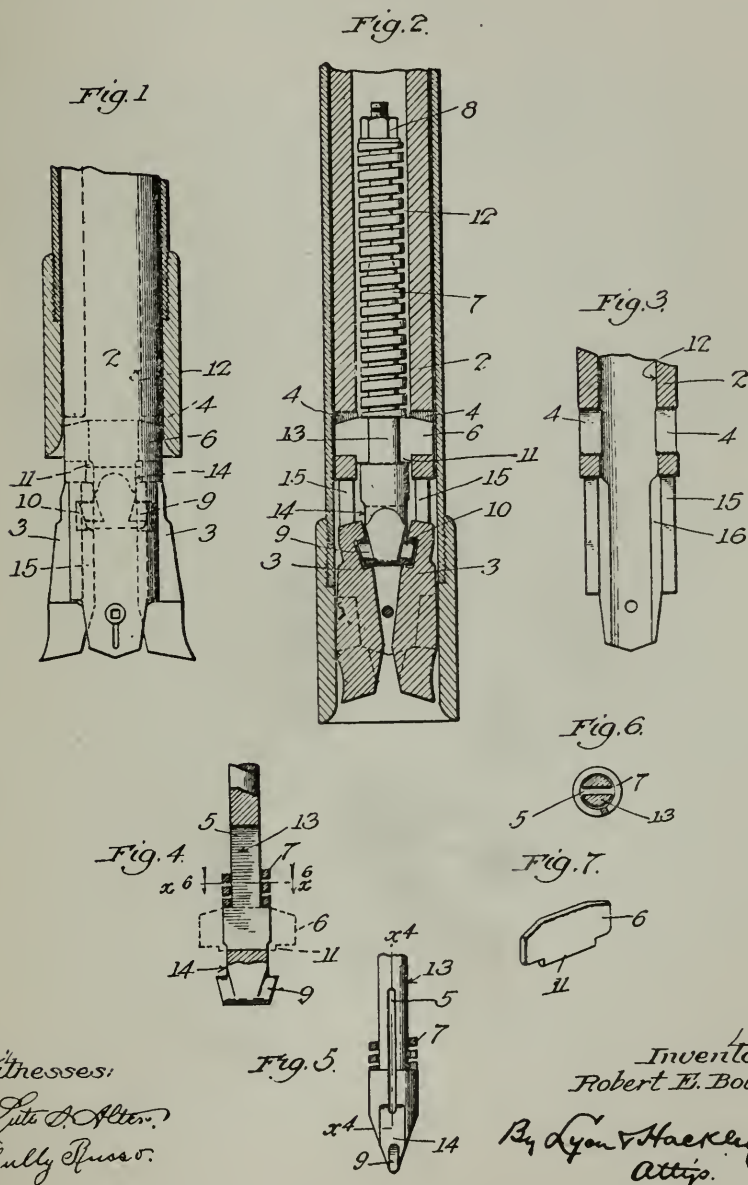
[Seal]

J. T. NEWTON,
Acting Commissioner of Patents. [648]

R. E. BOLE.
UNDERREAMEE.
APPLICATION FILED FEB. 19, 1913.

1,080,135.

Patented Dec. 2, 1913.



Witnesses:
Lute A. Allen,
Sully Russo.

Fig. 5.

Inventor:
Robert E. Bole,
By Lyon & Hackley
Attys.

UNITED STATES PATENT OFFICE.

ROBERT E. BOLE, OF LOS ANGELES, CALIFORNIA, ASSIGNOR OF ONE-HALF TO EDWARD DOUBLE, OF LOS ANGELES, CALIFORNIA.

UNDERREAMER.

1,080,135.

Specification of Letters Patent.

Patented Dec. 2, 1913.

Application filed February 19, 1913. Serial No. 749,343.

To all whom it may concern:

Be it known that I, ROBERT E. BOLE, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Underreamer, of which the following is a specification.

This invention relates to an improvement in underreamers and has for its particular object, the provision of a simple and exceedingly durable mounting of the spring actuated rod or mandrel within and on the body of the underreamer.

The invention consists in the constructions and combinations of parts hereinafter described and more particularly pointed out in the claims, and will be more readily understood by the accompanying drawings in which:

Figure 1 is a side view of an underreamer embodying my invention, the underreamer being shown as projecting just below the shoe of a well casing and a portion of the upper end of the body of the reamer and well casing being omitted, the spring actuated rod or mandrel and bits being shown in dotted lines in expanded or underreaming position. Fig. 2 is a similar longitudinal sectional view showing the underreamer within the well casing and the bits in collapsed position. Fig. 3 is a partial longitudinal sectional view of the body of the underreamer. Fig. 4 is a sectional view on the line x^a-x^a of Fig. 5 of the spring actuated rod or mandrel, and showing the key or gib in dotted lines. Fig. 5 is a side view of the spring actuated rod or mandrel, a portion of the coil spring being indicated thereon. Fig. 6 is a cross sectional view on the line x^b-x^b of Fig. 4 showing the relation of the coil spring and the mandrel or spring actuated rod. Fig. 7 is a perspective view of the key or gib.

In the type of underreamers illustrated, for example, in the patent to Wilson, No. 827,595, dated July 31st, 1906, the spring actuated rod or mandrel upon which the underreamer cutters or bits are carried, is shown as held in the center bore of the body portion of the underreamer by means of dowel-pins. Such construction was found in actual practice to be weak and liable to break, leaving the cutters and spring actuated rod or mandrel in the well hole. To obviate this weakness I provide the body por-

tion 2 above the upper ends of the bits 3 with a slot 4 and correspondingly slot the mandrel or spring actuated rod 13 as at 5. Through these slots I project a gib or key 6, the outer ends of the key or gib resting upon the bottom walls of the slots in the body portion and seating thereon. The slot 5 in the spring actuated rod or mandrel 13 is made of sufficient length to permit the necessary or desired reciprocation of the rod or mandrel in the body of the reamer, and in order to secure the proper tension on the spring 7 surrounding such rod or mandrel, I seat the lower end of the spring upon this gib or key and the upper end of the spring is compressed to a suitable degree by means of a nut 8 threaded onto the upper end of the spring actuated rod or mandrel. By adjusting this nut the tension of the spring and consequently the upward throw of the mandrel or rod in the body of the reamer may be regulated at will. This gib or key 6 is loosely mounted in the slot 4 of the mandrel or body, that is to say, it is not attached to said body by any means which mechanically fix it as a part of such body. The tension of the coiled spring 7 holds this key or gib 6 in position so that the wing or downwardly projecting portion 11 seats in the bore 12 of the body and the gib is so proportioned as to permit the passage thereof laterally through the slot 4 after the wing or projection 11 has been raised out of the lower extension of the bore 12. The lower end of this spring actuated rod or mandrel may be provided with wings or prongs 9 forming an integral T-head on which the bits 3 are mounted and tilt or move pivotally. In place of forming this T-head integral with the spring actuated rod, I may provide a slot (not shown) through the rod and utilize a removable key or gib, the ends of which seat in the sockets or key-seats 10 of the bits or cutters. The sockets or key-seats 10 of the bits are preferably somewhat larger than the wings 9, to permit of the necessary tilting action. The gib or key 6 is preferably provided with a wing or downwardly projecting portion 11 of sufficient width to just fit within the bore 12 of the body 2 and thus prevent the accidental displacement of the key. The lower end of the spring actuated rod or mandrel 13 is enlarged as shown, so as to provide flat bearing surfaces 14 for the inner faces at the

upper ends of the bits. Below the slot 4 in the body portion I leave sufficient metal to provide strong seats for the key or gib 6 and below such seats the body portion is formed in a hollow slotted extension 15, the side walls of the slot at each side being provided with dovetails 16 adapted to coact with corresponding dovetails on the bits, as shown in said patent to Wilson.

10 I claim:

1. An underreamer comprising a body having a central bore, a rod or mandrel mounted in said bore, said body provided with a slot, said rod provided with a longitudinal slot, a key or gib mounted in said slot and provided with a downwardly projecting portion adapted to contact with the wall of the central bore below said slot and prevent lateral displacement of the key from either side of the slot, a spring mounted on said gib and operatively connected with said rod, said rod provided at its lower end with a bit engaging head or key.

2. An underreamer comprising a body having a central bore, a rod mounted to reciprocate in said bore, said body and rod provided with slots, a key mounted in said slots, said key having a projection or wing projecting downward from the slot of the body into the central bore and preventing lateral motion of the key, a spring mounted on said key and coiled about said rod, means at the upper end of said rod adjustably connecting said rod and spring, means at the lower end of said rod for engaging and supporting the bits or cutters, and cutters or bits.

3. An underreamer comprising a body having a central bore, a rod or mandrel mounted in said bore, said body and rod provided with registering slots, a key or gib mounted in said slots and having a projection or wing fitting within the bore of said mandrel below said slots and shouldering against the wall upon transverse movement in either direction, a spring mounted on said gib and operatively connected with said rod, said rod provided at its lower end with bit engaging and supporting means, said rod being enlarged at its lower end and provided with surfaces adapted to support the inner ends of the bits or cutters, and bits or cutters mounted on said rod.

4. An underreamer comprising a body having a central bore, a rod or mandrel

mounted in said bore, said body and rod provided with registering slots, a key or gib mounted in said slots, the slot in the rod being of sufficient longitudinal extension to permit the movement of said rod longitudinally of said body, a key or gib loosely mounted in said slots and having a projection or wing projecting downward into the central bore below the walls of the slot in the body and anchoring said key or gib against movement transversely of said body, a spring mounted on said gib and operatively connected with said rod, said rod provided at its lower end with bit engaging means, bits tiltingly carried thereby, and bearings for the inner faces of said bits formed on said rod and adapted to prevent lateral displacement of said bits.

5. An underreamer comprising a body having a central bore, a rod mounted in said bore, said body and rod provided with registering slots, a key or gib loosely mounted in said slots and having means at the bottom for anchoring in said body, a spring surrounding said rod and connected thereto at the top thereof, and operatively connected to said key at its lower end, said rod provided with bit engaging means.

6. An underreamer comprising a body having a central bore, a spring actuated rod mounted in said bore, said rod provided with bit carrying means, and a key loosely mounted in said body and held therein by the tension of said spring.

7. An underreamer comprising a hollow body, a spring actuated rod mounted therein and provided with bit carrying means, and a key loosely mounted in said body and operatively connecting said rod and body.

8. An underreamer comprising a hollow body, a reciprocating rod, a spring and a key operatively mounting said rod in said body, said key fitting loosely in said body and held therein by spring tension on the top, and means preventing the key sliding laterally in the body without overcoming the downward pressure of the spring on the key.

In testimony whereof I have hereunto set my hand at Los Angeles, California, this 12th day of February, 1913.

ROBERT E. BOLE.

In presence of—
FREDERICK S. LYON,
F. A. CRANDALL.

[Complainant's Exhibit "B."]

[Endorsed]: B-19—Eq. U. S. Dist. Court, So. Dist. Cal., So. Div. Bole et al. vs. Wilson & Willard Mfg. Co. et al. Compls. Exh. B. Filed Mar. 24, 1915. Wm. M. Van Dyke, Clerk. Leslie S. Colyer, Deputy. [653]

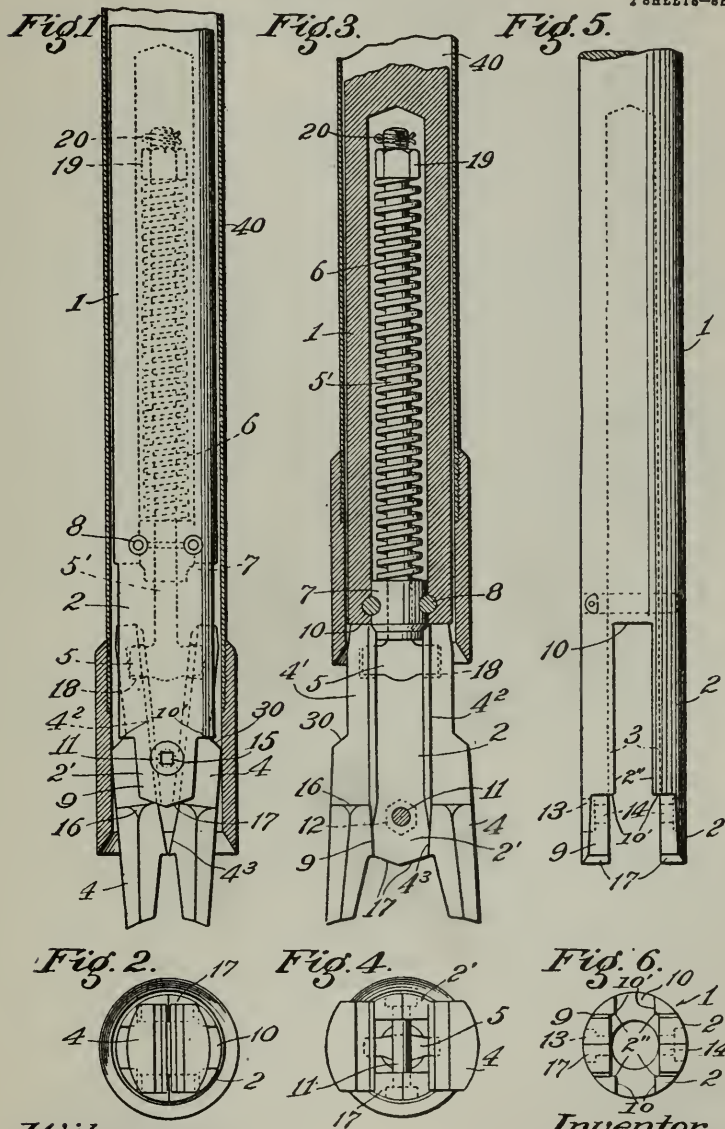
No. 827,595.

PATENTED JULY 31, 1906.

E. C. WILSON.
UNDERREAMER.

APPLICATION FILED NOV. 28, 1905.

2 SHEETS—SHEET 1.



Witnesses:

C. C. Holly
C. J. WilliamsInventor,
Elihu C. Wilson.By James R. Townsend
his atty

No. 827,595.

PATENTED JULY 31, 1906.

E. C. WILSON.
 UNDERREAMER.
 APPLICATION FILED NOV. 28, 1905.

2 SHEETS—SHEET 2.

Fig. 7.

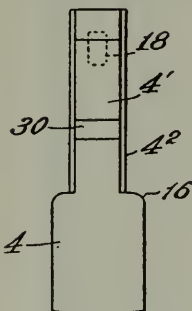


Fig. 8.

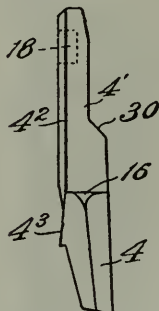


Fig. 9.

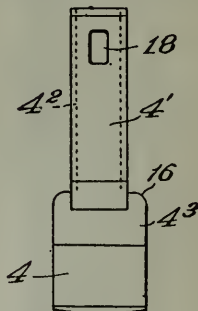


Fig. 10.

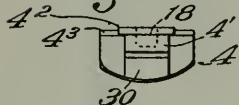


Fig. 11.

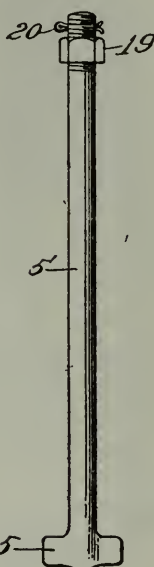


Fig. 12.

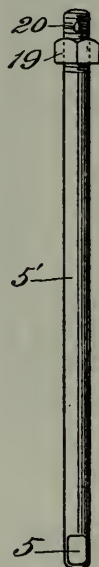
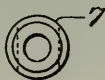


Fig. 13.



Fig. 14.



Witnesses:

C. C. Holly
 B. J. Williams

Inventor,

Elihu C. Wilson.

By James P. Townsend
 his atty

UNITED STATES PATENT OFFICE.

ELIHU C. WILSON, OF BAKERSFIELD, CALIFORNIA.

UNDERREAMER.

No. 827,595.

Specification of Letters Patent.

Patented July 31, 1906.

Application filed November 28, 1905. Serial No. 289,380.

To all whom it may concern:

Be it known that I, ELIHU C. WILSON, a citizen of the United States, residing at Bakersfield, in the county of Kern and State of California, have invented a new and useful Underreamer, of which the following is a specification.

Objects of this invention are to provide an underreamer of superior strength and of superior width and expansion of cutters so as to enable reaming as great a portion of the circumference of the hole as possible at each stroke, to insure greater safety against losing the cutters from the body while reaming, to avoid the necessity of a middle joint in the mandrel or reamer body, and to leave a maximum open space between the cutters to receive the loose material or sludge at the bottom of the well or other opening during the operation of drilling.

By this invention it is possible to increase the strength of the cross or T which suspends the cutters.

In this invention a cross or T formed of a single forging is provided for suspending the cutters.

Another decided advantage is simplicity and convenience of attaching and removing the cutters and suspending devices from the reamer-body.

Another advantage is facility of collapsing the cutters. I so construct the mouth of the underreamer as to dispense with stock between the collapsed cutters, thus enabling the cutters to close together. This feature makes extreme expansion possible and makes the use of maximum amount of stock in shanks of cutters possible, thus insuring maximum strength of cutters.

The accompanying drawings illustrate the invention.

Figure 1 is a view of the underreamer in a casing just before it has passed through the shoe of the casing, the parts being collapsed. Fig. 2 is a view looking at the bottom of Fig. 1. Fig. 3 is a view of this newly-invented underreamer in a well, the same having just passed through the casing-shoe and expanded for reaming the hole below. Portions are shown in mid-section. Fig. 4 is a view looking at the bottom of Fig. 3. Fig. 5 is a view of the reamer-body at right angles to Figs. 1 and 2. Fig. 6 is a view looking at the bottom of Fig. 5. Fig. 7 is a front view of a cutter detached. Fig. 8 is an edge view of a cutter at right angles to Fig. 7. Fig. 9 is a

view of the inside or back of the cutter. Fig. 10 is a view looking down on the top of the cutter. Fig. 11 is a view of the cross. Fig. 12 is a view of the cross at right angles to Fig. 11. Fig. 13 is a side view of the spring seat-block detached. Fig. 14 is a bottom view of the same.

1 designates a hollow body of an underreamer terminating in prongs 2, forming a fork, said prongs having shoulders 2' on their inner faces to form ways 3 for cutters. Said prongs are provided with and terminate in downwardly-projecting lugs 2' to spread the cutters apart.

4 designates the cutters, which are interchangeable; 4', the cutter-shank; 4², bearing-shoulders of the cutters to engage inside the ways 3; 4³, expansion bearing-faces of the cutters on the sides of said cutters.

The inner faces of the prongs 2 are parallel, and the sides or shoulders 2', which form the ways 3, are also parallel. The cutter-shank 4' and its bearing-shoulders 4² are straight—that is to say, the sides or edges thereof are parallel and fit the ways 3.

5 is a cross, 5' the stem of the cross, and 6 the spring which actuates the cross. The parts 5 5' constitute spring-actuated means for actuating the cutters to expand the same.

7 is a block forming a seat for the spring 6. One or more dowel-pins 8 may be provided as means for holding the block or spring-seat 7 in place.

9 designates the spreading bearings for holding the cutters 4 apart, and 10 the down-thrust bearings for the cutters. The down-thrust bearings 10' are in the nature of shoulders formed by the edges of the forks at the base of the lugs 2'. The prongs 2 of the body are of substantially one thickness throughout, excepting that they are reduced at their lower ends to form lugs for spreading the cutters 4 apart. The edges of the lugs 2' for the spreading bearings 9 and the prongs terminate abruptly in the shoulders 10' at the base of the lugs 2'. This construction affords the necessary operative structure with maximum strength for minimum weight of body.

11 is a detachable cross-piece in the form of a bolt secured by a nut 12. 13 is an angular socket in the outer face of one of the forks around the bolt-hole 14 in said fork. The nut 12 is conformed to the angular socket, and the bolt 11 is provided with an angular socket 15 in its head to receive a wrench (not shown) for screwing the bolt into the nut.

The expansion bearing-faces 4³ terminate at their upper ends in rounded corners or bearings 16 to ride more readily over the beveled end faces 17 of the downwardly-projecting lugs 2' to engage said bearings for expanding the cutters.

18 designates recesses in the inner faces of the cutters for engaging the ends of the cross 5.

19 and 20 indicate the usual tension-nut for the spring 6 and the cotter-pin for securing the same.

To assemble the underreamer, the block 7 will first be placed on the stem 5' of the cross 5, and the spring 6 is then adjusted and secured in place by the nut 19 and cotter-pin 20. Then the cutters are placed on the ends, respectively, of the cross 5, which seat in the recesses 18 therefor. Then, the parts thus assembled are inserted into the hollow mandrel and brought into the position shown in Fig. 3, whereupon the dowel-pins 8 are inserted and the cross-piece formed of the bolt 11 is then inserted. The nut 12 is placed in its angular socket 13, and the bolt or cross-piece 11 is then screwed home. The underreamer is then in condition for operation.

To use the underreamer, the cutters will be drawn down below the downwardly-projecting lugs 2', thus collapsing the same into the position shown in Fig. 1, whereupon the underreamer will be inserted into the pipe or casing in the usual manner and allowed to descend. When it has passed through the shoe, as shown in Fig. 3, the spring operates in the usual manner to draw the cross 5 up, thus bringing the cutters into the expanded position shown in Fig. 3. The rounded shoulders 16 ride readily over the beveled faces 17, and the upper ends of the cutters seat against the downthrust bearings 10, and the bearing-shoulders 4² of the cutters engage the ways 3 of the fork prongs or members 2, thereby being solidly held during the operation of underreaming. The spreading bearings 9 of the lugs 2' engage the expansion bearing-faces 4³ of the cutters at the same time, so that the tool is practically a unit during the operation of underreaming.

30 designates the usual shoulders on the cutters for drawing the same in when the tool is removed through the pipe or casing 40.

It is advisable that the lower ends of the forks 2 should not form downthrust bearings for the cutters, as there would otherwise be a tendency of crystallization of said forks, which is avoided by making the downthrust bearings at 10 only.

The cross-piece 11 serves as a brace for the prongs of the fork and prevents accidental removal of the cutters and T or cross 5.

It is to be noted that by the construction shown the cutters are quickly expanded at the initial upward movement of the same

after escaping the shoe of the casing 40, and that immediately thereafter the cutters are solidly held in the straight and parallel ways 3, and that when the cutters are fully drawn up they seat on the downthrust bearings 10 and the spreading bearings 9, while the shanks are rigidly held throughout their length. Said spreading bearings are on the lugs 2', which constitute wedges for wedging the cutters apart, and said bearings are at the sides of the lower ends of the body, thus engaging the outer edges of the cutters to hold the cutters apart and leaving an open space between the middle portions of the cutters for a greater distance upward from the lower ends of the cutters than would be the case were the cutters held apart by any intermediate portion between the lugs.

I term the cutters "shouldered cutters," for the reason that the rounded corners 16, which extend away from the shank at right angles thereto, are in the nature of shoulders, the inner faces 4² of which engage the spreading faces 9 of the side lugs 2' to brace the cutters and hold them apart.

What I claim is—

1. An underreamer-body terminating in prongs having projecting lugs at their lower ends with spreading bearings 9 for holding the cutters apart.

2. An underreamer-body terminating in prongs and provided with upper and lower bearings for the cutters, said prongs having projecting lugs, the edges of which form lower bearings for holding the cutters apart, and the ends of said lugs having beveled end faces.

3. An underreamer-body terminating in prongs the inner faces of which are provided with straight parallel ways, the ends of said prongs terminating in lugs below said ways to spread and hold the cutters apart.

4. An underreamer-body terminating in prongs forming a fork, said prongs having shoulders on their inner faces to form ways for the cutters.

5. A hollow underreamer-body terminating in prongs forming a fork having shoulders on the inner faces to form ways for the cutters, cutters in said ways, a cross in said hollow body for operating said cutters, a spring for operating the cross, a block in the body to form a seat for said spring, and one or more dowel-pins securing the block in place.

6. A hollow underreamer-body, cutters, a cross inside the hollow body for operating said cutters, a spring for operating said cross, a block in said body forming a seat for said spring, and one or more dowel-pins for holding the block in place, said block and pins being located entirely above the head of the cross.

7. A hollow underreamer-body terminating in prongs forming a fork and provided with ways and downthrust bearings for cut-

ers, cutters in said ways engaging said bearings, a cross for operating said cutters, a spring for actuating said cross, a block forming a guide for the stem of the cross and a seat for the cross-actuating spring, its lower end terminating above the head of the cross and projecting below the downthrust bearings to hold the upper ends of the cutters apart, and means for holding the block in the reamer-body.

8. A hollow underreamer-body terminating in prongs forming a fork, said prongs having shoulders on their inner faces to form ways, cutters in said ways, means for operating the cutters, and a detachable cross-piece connecting the ends of the fork.

9. An underreamer-body terminating in prongs forming a fork and provided with shoulders on the inner faces of the prongs which form cutter-ways and terminate in downwardly-projecting lugs, and cutters mounted between the prongs of said fork and having shoulders inside the fork and faces to bear on the projecting lugs.

10. An underreamer-body terminating in prongs having projecting lugs at their lower ends to hold the cutters apart.

11. An underreamer-body terminating in prongs forming a fork having beveled faces at the ends of its prongs, cutters having shoulders to ride over said beveled faces, and means for suspending said cutters in said body.

12. An underreamer-body terminating in prongs forming a fork, the ends of said prongs being provided with lugs to spread the cutters apart.

13. An underreamer-body terminating in prongs forming a fork, said prongs having shoulders on the inner faces to form ways for the cutters, and said prongs terminating in lugs to act as spreaders for the cutters.

14. A hollow underreamer-body terminat-

ing in prongs forming a fork, said prongs terminating in lugs for spreading the cutters, said lugs having beveled ends to engage bearings on cutters to expand cutters.

15. An underreamer-body terminating in prongs forming a fork, said prongs terminating in lugs or projections, said lugs having beveled faces or bearings to expand the cutters, and also faces or bearings for the cutters to rest on after they have expanded to a normal position for reaming.

16. An underreamer-cutter having two shoulders and a bearing-face on the inner side of each of the two shoulders of the cutter.

17. An underreamer-cutter having a shank and a shoulder on either side of the shank of the cutter, each of said shoulders projecting at right angles to the shank of the cutter and having a bearing-face on its inner side.

18. An underreamer having a body terminating in a fork, and cutters suspended between the prongs of the fork, the ends of said prongs constituting wedges to wedge between the cutters.

19. An underreamer comprising a body terminating in two prongs, and cutters each having two shoulders and a bearing-face on the inner side of each of the two shoulders to engage said prongs.

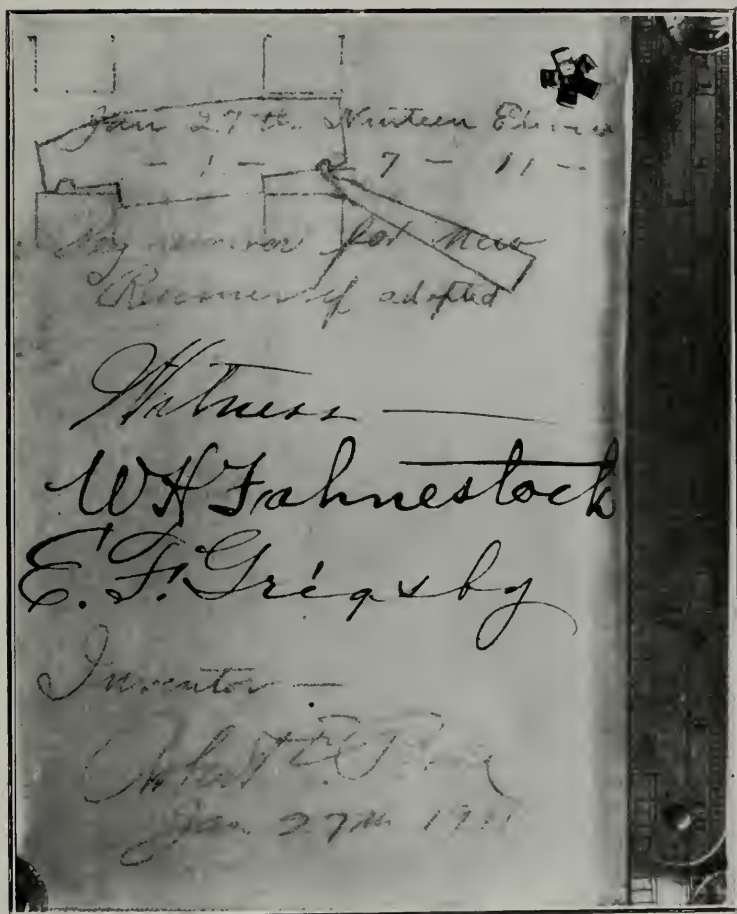
20. An underreamer comprising a body terminating in prongs the inner faces of which are provided with straight parallel ways, and cutters having straight shanks fitting said ways, the ends of said prongs terminating in lugs below said ways to spread and hold the cutters apart.

In testimony whereof I have hereunto set my hand at Bakersfield, California, this 20th day of November, 1905.

ELIHU C. WILSON.

In presence of—

H. I. TUFMAN,
T. E. KLOPSTEIN.



[Complainants' Exhibit "E"—Sketch on Linen,
"Bole's Exhibit, January 27, 1911, Sketch.']

Docket Clerk.

Nov. 16, 1914.

U. S. Patent Office.

U. S. Patent Office. In re Elihu C. Wilson vs. Robt. E. Bole. Interference No. 37,126. Bole's Exhibit January 27, 1911. Sketch. I. Benjamin, Notary Public. Sept. 21, 1914.

B-19-Eq. U. S. Dist. Court, So. Dist. Cal., So. Div. Bole et al. vs. Wilson & Willard Mfg. Co. et al. Compls. Exh. "E." Filed Mar. 26, 1915. Wm. M. Van Dyke, Clerk. Leslie S. Colyer, Deputy.

[Endorsed]: People's Ex. "A." Filed Dec. 1, 1914. Frank S. Forbes, Justice of the Peace. H. J. Bille. Edgar E. Stechnill, 1-2-3-4. E.10. E.25 Art. [662]

B19 Eq.

Cl. Rich Court
 So. Dist Cal
 So. Div

So. Co. et al.

W. L. Wilson & Willard
 Mfg. Co. et al.

Comp. Co. & F.

FILED

MAR 23 1915

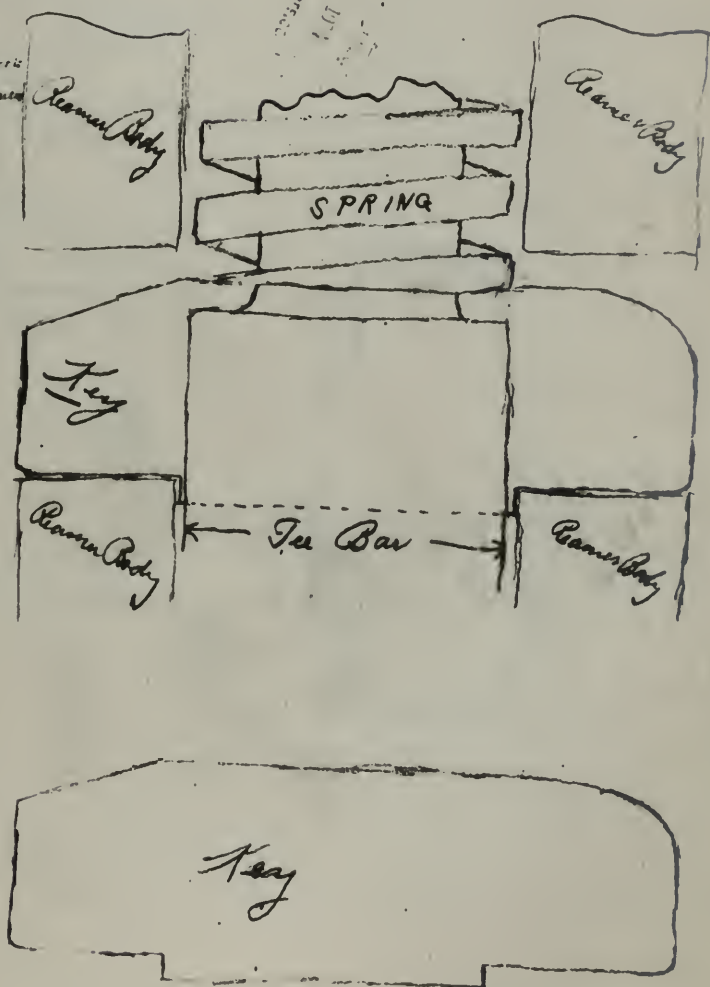
H. M. Van Dyke, Clerk

Joseph S. Galt, Deputy

Boles Exhibit Reproduction of 1908
 Monarch Order sketches

Sept 21, 1914

A. P. Benjamin
 Notary Public



B19 Eq.

U. S. Dist. Court
So. Dist. Cal.
St. Div.

Bote et al.

Wilson & White and
Mfg. Co. et al.
Compls' Exh. H

FILED

Clerk's
Leslie S. Coyle Deputy



**[Complainants' Exhibit "I" — Certified Copy
Records of Patent Office, Reasons of Appeal and
Notice of Hearing, Wilson vs. Bole.]**

2-390.

UNITED STATES OF AMERICA,

Department of the Interior,

United States Patent Office.

To all to whom these presents shall come, Greeting:

THIS IS TO CERTIFY that the annexed is a true copy from the Records of this Office of the Reasons of Appeal, filed March 23, 1915, and Notice of Hearing dated March 25, 1915, in the matter of

Interference,

Wilson vs. Bole,

Subject-Matter:

Under-reamer.

Number 37,126. B-19-Eq. U. S. Dist. Court, So. Dist. of Cal., So. Div. Robt. E. Bole et al. vs. Wilson & Willard Mfg. Co. et al. Compl's Exh. I. Filed Apr. 12, 1915. Wm. M. Van Dyke, Clerk. By Leslie S. Colyer, Deputy.

IN TESTIMONY WHEREOF I have hereunto set my hand and caused the seal of the Patent Office to be affixed at the City of Washington, this 29th day of March, in the year of our Lord one thousand nine hundred and fifteen and of the Independence of the United States of America the one hundred and thirty-ninth.

[Patent Office Seal.]

J. T. NEWTON,
Acting Commissioner of Patents.

10¢ Internal Revenue Stamp canceled Mar. 29.
U. S. Patent Office. [665]

Intf. No. 37,126. Paper No. 62.

\$10.00 RECEIVED

MAR.

23 H.

1915.

CHIEF CLERK U. S. PATENT OFFICE.

DOCKET CLERK.

MAR. 24, 1915.

U. S. PATENT OFFICE.

UNITED STATES PATENT OFFICE.

ELIHU C. WILSON,

vs.

ROBERT E. BOLE.

Interference No. 37,126.

UNDERREAMERS.

To the Commissioner of Patents,

Sir: I hereby appeal to the Examiners-in-Chief from the decision of the Examiner of Interferences dated March 20, 1915, in the matter of the above-entitled interference, in which priority of invention was awarded to Elihu C. Wilson, the junior party. The following are assigned as the reasons of appeal:

1. The Examiner of Interferences erred in holding that the testimony of the witnesses Heber and Adams in regard to the disclosure of the invention to them by Bole in September, 1908, "does not carry conviction."

2. The Examiner of Interferences erred in hold-

ing that the testimony of Willard regarding Bole's order of September, 1908, is so contradictory as to be of little value in determining who was the inventor of the device in controversy.

3. The Examiner of Interferences erred in holding that the suggestion made by Bole at the conference on February 3, 1911, that the key could be removed by prying it out, does not indicate such knowledge of the invention in issue on the part of Bole as to denote prior conception of the same, and does not negative an independent conception [666] of the invention by Wilson. The Examiner furthermore erred in holding that this evidence does not point to the conclusion urged (by Bole), but that at most it merely indicates that Wilson had not worked out all the details of the invention, and that Bole suggested one of the details.

4. The Examiner of Interferences erred in holding that another circumstance which limits Bole's claim to the key removing tool rather than the key itself is his "Exhibit January 27, 1911, Sketch."

5. The Examiner of Interferences erred in holding that Bole's "Exhibit January 27, 1911, Sketch," is not proved to have been witnessed by Fahnestock and Grigsby or disclosed to anyone at the date noted thereon or at any date prior to the alleged conference of February 3, 1911.

6. The Examiner of Interferences erred in holding that the testimony of Houriet and Wills was proper rebuttal testimony, and in denying Bole's motion to strike out said testimony.

7. The Examiner of Interferences erred in hold-

ing that the absence of the original shop order obtained by Bole in September, 1908, and the key sketch which must have accompanied the shop orders for the construction of the first underreamer embodying the invention, "is not sufficient to discredit the positive testimony of the witnesses or to alter their conclusions arising from the other circumstances of the case."

8. The Examiner of Interferences erred in holding that of all the witnesses for Wilson, only Willard and Wilcox testify that Bole asserted any claim to the invention prior to January, 1913, "and these witnesses testify positively [667] that such claim by Bole was not made until sometime after the Wilson under-reamer with the invention embodied therein had been manufactured and placed on the market and its success assured."

9. The Examiner of Interferences erred in holding that "when all of the circumstances of the case are considered, the evidence clearly establishes Wilson and not Bole as the original inventor."

10. The Examiner of Interferences erred in awarding priority of invention of the subject-matter in issue to Elihu C. Wilson, the junior party.

11. The Examiner of Interferences erred in not awarding priority of invention of the subject-matter in issue to Robert E. Bole, the senior party.

An oral hearing is requested.

The appeal fee of \$10.00 is enclosed herewith.

Respectfully,

ROBERT E. BOLE,

By C. A. MASON,

Associate Attorney.

Washington, D. C., March 23, 1915.

C.M.S.

E.E.G. [668]

#2-201.

Paper No. —.

Address only

The Commissioner of Patents.

Washington, D. C.

Department of the Interior.

UNITED STATES PATENT OFFICE.

Washington.

RECEIVED

Mar. 26, 1915.

C. A. MASON,

Solicitor of

Patents.

March 25, 1915.

Sir:

~~Serial~~

The case of Wilson vs. Bole. Intf. No. 37,126,

~~Commissioner~~

will be heard by the Examiners-in-chief on the 7th day of May, 1915.

~~ten~~

The hearings will commence at (one) o'clock, and as soon as the argument in one case is concluded the succeeding case will be taken up.

If any party, or his attorney, shall not appear when the case is called, his right to an oral hearing will be regarded as waived.

The time allowed for arguments is as follows:

Ex parte cases, thirty minutes;

Motions, thirty minutes, each side;

Interference appeals, final hearing, one hour each side.

By special leave, obtained before the argument is commenced, the time may be extended.

The appellant shall have the right to open and conclude in interference cases, and in such case a full and fair opening must be made.

Briefs in interference appeals must be filed in accordance with the provisions of Rule 147.

Respectfully,

THOMAS EWING,

Commissioner of Patents.

To C. A. Mason, Asso. Atty.,

McGill Bl'd'g.,

Washington, D. C.

To _____

6-1961 [669]



A. J. Dist. Court
 Southern District of California
 Southern Division
 Robert E. Hale et al
 vs
 Nelson & Walland & Jeffers et al
 1915

John's Exhibit Note Book
 Feb 13. 1915.

Coumple's Exh
 (above)
 W. H. H. H. H.
 W. H. H. H. H.

Exh. cut-
 tled to dep.
 of Roy L. H. H.

Apr. 12, 1915
 Wm M. Van Dyke
 By Leslie S. Coyle,
 Deputy

In the United States Patent Office,

E.C. Wilson } In re Interference
Robert E. Ryle } No. 37126.

Wilson Exhibit Photo A of Wilson
Reamer 2-piece Key Device
May 28, 1914

Attest
Notary Public

W.S. Diet. Agent
S.O. Diet. of Cal.
S.O. Diet.

FILED

Bole
-77.

W.D. Diet.
S.O. Diet.
W.D. Diet.

MAR 23 1915

Wm. M. Van Dyke, Clerk

Leila S. Colyer Dep'ty

Safes' Eith.
(as above)

DOCKET 1915
MOV 16 1914
FBI OFFICE



In the United States Patent Office 13

C. C. Wilson } In re. Interference
Robert E. Boyle } No 37,126

Wilson Exhibit Photo of Wilson
Reaver 2-piece Key Device

May 28, 1914 J. P. Bryan
Attorney Public

DOCKET CLERK

NOV 16 1914

FILLED

MAR 23 1915

Wm. M. Fox Dyke, Clerk
Patent Office

No. 319 E.

W. L. Dist. Court
S. O. Dist. of Cal.
L. O. Dist.

Boles et al

vs. Wilson
Mfg. Co. et al

of the S. O.
(see above)



[Defendants' Exhibit—Wilson Exhibit, Pacific Iron Works Letter of January 28, 1911.]

RECEIVED

Jan. 30, 1911.

Ans'd, M&M.

PACIFIC IRON WORKS.

Manufacturers of

Oil Well Tools and Fishing Tools,
General Repairs and Machine Work,
Automobile Repairing and Supplies.

McKittrick, Cal., Jan. 28, '11.

Mess. Wilson & Willard Mfg. Co.,

Los Angeles, Calif.

Gentlemen:

Your favor of the 26th addressed to our Mr. Williams received. In reply, the writer wishes to state that he remembers distinctly the conversation *referred* to regarding Slotted Tee for your Underreamer.

I wish to *emphasis* the fact that I consider this form of Tee far superior to what you call your Side Screw Type, the Spring being much easier set and the Screws not giving near the trouble to loosen and take the Reamer apart. I have had practical demonstration of this form of Reamer by owning and operating two of this type. Will further state that this is the pattern Manville Tee that has just been broken, and we feel that it was not the fault of the construction, as Underreamer was used to pull in and drill up one joint of heavy 12½" casing, and the driller

informed me that nothing was spared as far as was possible to save the Underreamer in any way. When the Tee broke, the Cutters simply dropped to the safety bolt, and the Tool was pulled out with nothing lost.

We are satisfied if you would return to this form of Manville Tee, and construct same according to specifications you name, that is using Nickle Steel and making heavier Manville Tee, we think your Underreamer will become far more popular. As to comparing it with any other type will state [673] I have had no experience with any of these machines as I have considered the Wilson Underreamer the best in the market, and have made a specialty of it, owing at the present time, four, from the 6" to the 12½", the largest size pipe we use in this field.

We think you have solved in a measure one of the principal reasons why your Underreamer has the ungrounded prejudice you mention and which has been so *noticable* in the past.

With the improvement contemplated and a little missionary work among the users of your Tool, we feel that you will have no trouble in obtaining your share of the business.

Very truly,
PACIFIC IRON WORKS,
HSW-EAH. H. S. WILLIAMS, Mgr.

[Endorsed]: In the United States Patent Office.
E. C. Wilson v. Robert E. Bole. In re Interference
No. 37126. Wilson Exhibit Pacific Iron Works
Letter of Jan. 28, '11. May 28, 1914. I. Benjamin,
Notary Public. B-19-Eq. U. S. Dist. Court, So.

Dist. Cal., So. Div. Bole et al. vs. Wilson & Willard Mfg. Co. et al. Defts.' Exh. (as above). Filed Mar. 23, 1915. Wm. M. Van Dyke, Clerk. Leslie S. Colyer, Deputy.

Docket Cl. ———.

Nov. 16, 1911.

U. S. Patent Office. [674]

[Defendants' Exhibit 2—Two Shop Orders, Wilson & Willard Manufacturing Company to Pacific Iron Works, 1-26-1911.]

—r Received From	Shop Order, Wilson & Willard Mfg. Co.	Order No. 6775
Purchaser's Order No.	Date 1-26-1911.	
E. C. W. Salesman.	Charge to Pacific Iron Works, Ship to McKittrick, California. Via Express Today.	Foreman's O. K.
	Ship via. —————	

1 12-1½" Slotted Tee, with Nut.

(28) Shipped 1/26-11
Sentry S. P. Exp.
Grigsa.

Delivered Sentry

Ex

Date 1/26/11

O. K. —————

Date 1/27/11

Foreman K. [675]

—der Received From	Shop Order, Wilson & Willard Mfg. Co.	Order No. 6775
Purchaser's Order No.	Date 1-26-11.	
Salesman	Charge to Pacific Iron Wks.	Foreman's O. K.
E. C. W.	Ship to McK. ————— Ship via Express—Today.	

1—12½" x Slotte d Tee with Nut.

[Endorsed]: B-19—Eq. U. S. Dist. Court, So. Dist. Cal., So. Div. Bole et al. vs. Wilson & Willard Mfg. Co. et al. Defts. Exh. 2. Filed Mar. 23, 1915, Wm. M. Van Dyke, Clerk. Leslie S. Colyer, Deputy. [676]

THIS MEMORANDUM is an acknowledgment that a bill of lading has been issued and it is not the Original Bill of Lading, nor a copy or duplicate, covering the property named herein, and is intended solely for filing or record.

Shippers No. _____

Agents No. 6

RECEIVED, subject to the classifications and tariffs in effect on the date of the receipt by the carrier of the property described in the Original Bill of Lading, *Class 9000* *5/25* 19*11*

from _____ (contents and condition of contents of packages unknown), marked, consigned and destined as indicated below, which said Company agrees to carry to its usual place of delivery at said destination, if on its road, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the conditions, whether printed or written, herein contained (including conditions on back hereof) and which are agreed to by the shipper and accepted for himself and his assigns.

The Rate of Freight from.

to _____ is in Cents per 100 Lbs. If Commodity

IF _____ Times 1st	IF 1st Class	IF 2d Class	IF 3d Class	IF 4th Class	IF 5th Class	IF A Class	IF B Class	IF C Class	IF D Class	IF E Class
--------------------	--------------	-------------	-------------	--------------	--------------	------------	------------	------------	------------	------------

.(Mall Address—Not for purposes of Delivery.)

Consigned to S. A. M. Oakley & Co. Inc.

Destination, Chapel Hill State of NC County of

Route _____ Car Initial _____ Car No. _____

[illegible]

If charges are to be prepaid, write or stamp here, "To be prepaid."

Received \$ _____
to apply in prepayment
of the charges on the
property described
hereon.

Agent or Cashier.

Per _____
(The signature here acknowledges only the amount prepaid.)

Charges Advanced:

Shipper.

Agent.

Per.

Per.

J. J. Peters Office

June
 Wilson } Interference
 Note } No. 37124
 Wilson Exhibit B
 Specimens of Engraving
 Showing writing

Oct. 9, 1914
 Messrs.
 J. J. Peters
 45 Bond Court
 So. 10th St.
 St. Louis

CONDITIONS

FILED

MAR 23 1915

Wm. A. Van Dyke, Clerk
 J. J. Peters, Deputy

Sec. 1. The carrier or party in possession of the property herein described shall be liable for any loss thereof or damage thereon, except as hereinafter provided.

No carrier or party in possession of any of the property herein described shall be liable for any loss thereof or damage thereon or delay caused by the act of God, the public enemy, quarantine, and authority of law, or the act or default of the shipper or owner, or for delay in the weighing of grain, seed, or other commodities caused by natural shrinkage or discrepancies in elevator scales. For loss, damage, or delay caused by fire occurring after forty-eight hours (exclusive of legal holidays) after loading of the weight of the property at destination or at port of origin, intended for export, has been duly paid or given, the carrier's liability shall be that of warehouseman only. Except in case of negligence of the carrier or party in possession (and the burden to prove freedom from such negligence shall be on the carrier or party in possession), the carrier or party in possession shall not be liable for loss, damage, or delay occurring while the property is stored and held in breach upon request of the shipper, owner, or party named in bills of lading, receipt, or running from a depot or, vice versa, the property of them, their or theirs. When in accordance with general custom, on account of the nature of the property, or when at the request of the shipper the property is transported in open cars, the carrier or party in possession (except in case of loss or damage by fire, in which case the liability shall be the same as though the property had been loaded in closed cars) shall be liable for negligence, and the burden to prove freedom from such negligence shall be on the carrier or party in possession.

Sec. 2. In issuing this bill of lading this company agrees to transport only over its own line, and except as otherwise provided by law this only as agent with respect to the portion of the route beyond its own line.

No carrier shall be liable for loss, damage, or delay not occurring on its own road or the portion of the through route, and after said property has been delivered to the next carrier, except as such liability is expressly imposed by law, but nothing contained in this bill of lading shall be deemed to exempt the initial carrier from any such liability so imposed.

Sec. 3. No carrier is bound to transport said property by any particular train or vessel, or at time for any particular market or otherwise than with reasonable dispatch, unless by specific agreement in derogation hereon. Every carrier shall have the right in case of physical necessity to forward said property by any railroad or route between the point of shipment and the point of destination; but if such diversion shall be from a rail to a water route the liability of the carrier shall be the same as though the entire carriage were by rail.

The amount of any loss or damage for which any carrier is liable shall be computed on the basis of the value of the property (being the bona-fide invoice price, if any, to the consignee, including the freight charges, if prepaid) at the place and time of shipment under this bill of lading, unless a lower value has been represented in writing by the shipper or has been agreed upon and is determined by the classification or tariff upon which the rate is based, in any of which events such lower value shall be the maximum amount to govern such computation, whether or not such loss or damage occurs from negligence.

Claims for loss, damage, or delay must be made in writing to the carrier at the point of delivery or at the point of origin within four months after delivery of the property, or, in case of failure to make delivery, then within four months after a reasonable time for delivery has elapsed. Unless claims are so made the carrier shall not be liable.

Any carrier or party liable on account of loss of or damage to any of said property shall have the full benefit of any insurance that may have been effected upon or on account of said property, so far as this shall not avoid the policies or contracts of insurance.

Sec. 4. All property shall be subject to necessary coopersage and baling at owner's cost. Each carrier over whose route cotton is to be transported hereinafter shall have the privilege, at its own cost and risk, of commencing the same for greater convenience in handling or forwarding, and

shall not be held responsible for deviation or unavoidable delay in procuring such compression. Grain in bulk consigned to a point where there is a railroad, public, or licensed elevator, may (unless otherwise expressly noted herein, and then if it is not promptly unloaded) be there delivered and placed with other grain of the same kind and grade without respect to ownership, and if no default shall be subject to a lien for elevator charges in addition to all other charges hereunder.

Sec. 5. Property hereunder by the party entitled to receive it within forty-eight hours (exclusive of legal holidays) after notice of its arrival has been duly sent or given may be kept in car, depot, or place of delivery of the carrier, or warehouse, subject to a reasonable charge for storage and to carrier's responsibility as warehouseman only, or may be, at the option of the carrier, removed and stored in a public or licensed warehouse at the cost of the owner and there held at the owner's risk and without liability on the part of the carrier, and subject to a lien for all freight and other lawful charges, including the reasonable charges for storage.

The carrier may make a reasonable charge for the detention of any vessel or car, or for the use of any other thing the car has been held forty-eight hours (exclusive of legal holidays) in loading or unloading, and may add such charges to all other charges hereunder and hold such property subject to a lien thereon. Nothing in this section shall be construed as limiting the time allowed by law or by any local rule affecting car service or storage.

Property destined to or from a station, wharf, or landing at which there is no regularly established custom shall be entirely at risk of owner after unloading from cars or vessels or after loading into cars or vessels, and when removed from or delivered at a wharf or other station, wharf, or landing shall be at owner's risk until the cars or vessels are detached and after they are detached from trains.

Sec. 6. No carrier will carry or be liable in any way for any documents, specie, or for any article of extraordinary value not properly noted in the published classification or tariff, unless a special agreement to do so and a stipulated value of the article are indorsed hereon.

Sec. 7. Every party, whether principal or agent, shipping explosive or dangerous goods, without previous full written disclosure to the carrier of their nature, shall be liable for all loss or damage caused thereby, and such goods may be warehoused at owner's risk and expense or destroyed without compensation.

Sec. 8. The owner or consignee shall pay the freight and all other lawful charges accruing on said property, and, if required, shall pay the same before delivery. If upon inspection it is ascertained that the articles shipped are not those described in this bill of lading, the freight charges must be paid upon the articles actually shipped.

Sec. 9. Except in case of diversion from rail to water route, which is provided for in section 3 hereof, if all or any part of said property is carried by water over any part of said route, such water carriage shall be performed subject to the liabilities, limitations, and exemptions provided by statute and to the conditions contained in this bill of lading not inconsistent with such statutes or this section, and subject also to the condition that no carrier or party in possession shall be liable for any loss or damage resulting from the perils of the lakes, sea, or other waters; or from explosion, bursting of boilers, breakage of shafts, or any latent defect in hull, machinery, or appurtenances; or from collision, stranding, or other accidents of navigation, or from prolongation of the voyage. And any vessel carrying any or all of the property herein described shall have the liberty to call at intermediate ports, to tow and be towed, and send vessels in distress, and to deviate for the purposes of saving life or property.

The term "water carriage" in this section shall not be construed as including lighters across rivers or in lakes or other harbors, and the liability for such lighterage shall be governed by the other sections of this instrument.

Sec. 10. Any alteration, addition or erasure in this bill of lading which shall be made without an indorsement thereof hereon, signed by the agent of the carrier issuing this bill of lading, shall be without effect, and this bill of lading shall be enforceable according to its original tenor.

**[Defendants' Exhibit—Wilson Exhibit, Putnam &
Valentine Paid Photograph Account.]**

STATEMENT.

Telephones: Sunset Broadway 1950.

Home, A.2600.

Los Angeles, Cal., Aug. 1, 1911.

M. Wilson Mfg. Co.,
 15th S. Fe.

Bought of PUTNAM & VALENTINE, Photogra-
phers, 208 North Spring St., Temple Block.

(P&V)

All bills subject to sight draft at 60 days, Interest charged thereafter.

June 24 To Bal. Acct. rendered....18.00

28 “ Mdse..... 3.00

\$21.00

Ck. 6378.

Please remit & oblige

P. & V.

PAID

9/1/11

PUTNAM & VALENTINE.

Per G. V. [679]

Terms Cash. All bills subject to
sight draft at 60 days. Interest
charged thereafter.

P. & V.

Western Scenic Pictures.

The standard line of Pacific
Coast Photographs.

All claims for errors or shortage
must be made immediately upon
receipt of goods.

Manufacturers and Wholesalers
of Photographic Novelties, En-
largements, Lantern Slides, etc.

PUTNAM & VALENTINE.

Photographers.

208 North Spring Street.

Temple Block.

Los Angeles, Cal., June 24, 1911.

Telephones: Sunset Broadway 1950.

Home A-2600.

Wilson Mfg. Co.,

15th & St. Fe Ave.

Shipped by

12 8/10 photo.....1.50 \$18.00
Ck. 6378.

Reamer a/c.

We do commercial photography of every kind.

[Endorsed]: In the United States Patent Office.
E. C. Wilson v. Robert E. Bole. In re Interference
No. 37,126. Wilson Exhibit Putnam & Valentine
Paid Photograph Account. May 29, 1914. I. Ben-
jamin, Notary Public. B-19—Eq. U. S. Dist.
Court, So. Dist. of Cal., So. Div. Robt. E. Bole et al.
vs. Wilson & Willard Mfg. Co. et al. Defts. Exh.
(as above). Filed Mar. 23, 1915. Wm. M. Van
Dyke, Clerk. Leslie S. Colyer, Deputy. [680]

15702

DUPLICATE

No 22906

WESTERN LITHOGRAPH CO.

SOLD TO Wilson & Holland Mfg Co.

15th & Santa Fe Ave

TELEPHONES
HOME A-1652
MAIN 6007

SHIPPED TO them AT

HOW SHIPPED by FT. EXP. F.O.B. PREPAID C.O.D.

415 Booklets

In the Matter of Robert Wilson

E.C. Wilson } In re Deafness
Robert E. Hale } No. 37126

Wilson Robert Wilson
Resumer Booklet of 1911
Delivery Slip.

May 29, 1914

J. H. H. H.
Notary Public

3195
U. S. Dist. Court
So. Dist. Cal.
So. Dist.

W. Wilson & Holland Mfg.
Co. at 15th & Santa Fe Ave.
FILED

MAR 21 1914

Wm H. H.
Booklet

KEEP THIS MEMO TO CHECK WITH INVOICE

[Defendants' Exhibit—Bole's Exhibit, W. W. Wilson Cross-Examination Exhibit 1 for Identification, Agreement Between Robert E. Bole Pump Company and Wilson & Willard Manufacturing Company.]

Docket Clerk.

Nov. 16, 1914.

U. S. Patent Office.

AGREEMENT.

THIS AGREEMENT made and entered into this 1st day of February, 1913, by and between the Robt. E. Bole Pump Company, not a corporation, party of the first part, and the Wilson & Willard Mfg. Company, party of the second part, witness:

WHEREAS the party of the first part is desirous of making settlement of its account with the part — of the second part, and whereas the said part — of the first part desires to have attachment released and management of its properties recovered, said party of the first part agrees as follows to pay:

Said party of the second part Five Thousand (\$5000.00) Dollars to be paid as follows:

One thousand (\$1000.00) Dollars cash on February 1st, 1913.

One thousand (\$1000.00) Dollars cash on February 3rd, 1913.

Three thousand (\$3000.00) Dollars cash on March 1st, 1913.

It is further agreed that said party of the first part shall assume all expenses in the attachment proceedings incurred except the attorney's fees of

the said party of the second part in the attachment proceedings now pending against the party of the first part. Said fees and expenses to be paid not later than March 1st, 1913. In further consideration the said party of the second part agrees to release said attachment and dismiss the action.

Said party of the first part also agrees that all of the Bole Pumps, both finished and unfinished, and all materials used in the manufacture thereof, all fittings for same, together with all other tools, machinery, accounts receivable, automobiles, and all other properties belonging to the party of the first part shall remain intact until the final payment of the three thousand [681a] (\$3000) Dollars and expenses of attachment suit to be made on March 1st, 1913, other than such disbursements as may be necessary to meet the sales and to care for all manufacture of said pumps as will be necessary to care for the current demands during the period between February 1st, 1913, and the date of final payment.

It is further agreed that said party of the first part shall have the right to mortgage any or all of the properties both real or personal belonging to said party of the first part during the time in agreement between February 1st and the date of final payment, such mortgage to be approved by party of the second part before execution.

It is further agreed that A. G. Willard of the Firm of Wilson & Willard Mfg. Company to be granted the privilege of either keeping the accounts of the said Bole Pump Company, party of the first part, or to have the privilege of inspecting same, and to

be furnished by the party of the first part all data concerning sales, deliveries, collections, and expenses incurred during the time intervening and up to the time of final payment.

After said final payment the said party of the second part hereby relinquishes any claim whatsoever, or any right to inspect the accounts of, or to in any wise have any interest whatever in the properties of the said Bole Pump Company, party of the first part.

Said party of the second part hereby acknowledges receipt of the first one thousand (\$1000.00) Dollars payment.

THE ROBERT E. BOLE PUMP CO.,

By ROBERT E. BOLE,

Party of the First Part.

WILSON & WILLARD MFG. CO.,

Per E. C. WILSON, President.

Party of the Second Part.

Party of the Second Part.

Witnessed by

WM. H. FAHNESTOCK.

W. W. WILSON.

WILSON & WILLARD MFG. CO.

PAID, Feb. 14, 1913.

Per A. G. WILLARD. [682]

[Endorsed]: In U. S. Patent Office. E. C. Wilson v. Robert E. Bole, in Interference No. 37,126. Boles Exhibit W. W. Wilson Cross-examination Exhibit 1 for Identification. June 22, 1914. I. Benjamin, Notary Public. B-19—Eq. U. S. Dist. Court, So.

Dist. Cal., So. Div Bole et al. vs. Wilson & Willard
Mfg. Co. et al. Defts.' Exh. (as above). Filed
Mar. 23, 1915. Wm. M. Van Dyke, Clerk. Leslie
S. Colyer, Deputy. [683]

**[Defendants' Exhibit—Wilson Exhibit, Bole Letter
of January 17, 1913.]**

Los Angeles Bakersfield Coalinga Taft
THE ROBERT E. BOLE PUMP COMPANY.
2411 East 15th Street,
Coalinga,

Docket Clerk.

Nov. 16, 1914.

U. S. Patent Office.

Los Angeles, Cal., Jan. 17th, 1913.

RECEIVED

Jan. 16, 1913.

Ans'd. ———

E. C. Wilson, Pres.,

Wilson and Willard Mfg. Co.,

Los Angeles, Cal.

Dear Sir:

Your several letters received and will say that
it has taken me some time to get to a frame of mine
where I could answer them at all.

Your letters and telephone message point to one
of two things, either that your financial troubles
have gone to your head or else the only other alter-
native that you are a crook and I want to inform
you here and now that I will not be a party to any
crooked deals and when the notes from the Zier Oil

Co. arrive, if I can get them discounted I will do so and the money will go to pay my accounts the Bole Pump Co. may owe and which are due for payment.

Now I have notified you time and again to let my business alone and to let the men who are working for me alone and this last act of yours in writing letters and signing the name of the Bole Pump Co. and sending them to the different oil companies without any authority whatever is, I believe, a criminal offence and as soon as I can estimate the damage done by you by reason of these letters I will let you know.

Now as to our taking stock for you I cannot see that it is any of your business what our stock is and as to my *asking* [684] you in my letter to do at least one thousand dollars worth of work on three-inch and two-inch pumps, you seem to be trying to make me understand that you are doing me a favor by accepting this work. If you do not wish to do any more work for me all you have to do is say so and I will take the work to some other shop or else arrange to do it in my own shop. Again as to this *asking* for \$1000.00 worth of work which you mention in yours of Jan. 14th. Why this sudden change on your part? A few months ago when I wanted to lay off men in the shop and not work up my stock any faster than it was sold you begged me to have the work done in order to give the shop something to do and said then that if I would give your firm the work you would do it just as cheap and good as anyone else, would guarantee all work, that you would purchase any machines, buy any material, ex-

tend my credit and to use almost your exact words, "Bob, it has been a dandy little business. Give us the work and if in giving it to us it should run you in debt, take all the credit and time you want and if the price is not right we will make it right. We will do this work as cheap and as good as any other company and guarantee it." Again I ask you, why this sudden change on your part?

In reference to your insulting letter of Dec. 31st to our Mr. Hubbard will say that Mr. Hubbard is on the pay-roll of the Bole Pump Co. and until he leaves this Company will be governed by instructions from me and not from you.

Now I do not know what your object is in butting in on my business but one thing is certain if it was to injure it you have certainly succeeded. How badly I do not as yet know but as soon as I do know I shall demand that you reimburse me for all losses or damage sustained. [685]

Now, I don't believe that under the circumstances we can continue longer to do business and in breaking any business ties that might exist, there are many things which will have to be settled up and as I do not care to deal further with you I will take these matters, with one exception, up with your Mr. Willard.

This one exception is in regard to the key used in your present-day under-reamer and as I expect we will no longer be friends, if you care to use this key in the manufacture of your under-reamer, from Feb. 1st, 1913, I shall expect a reasonable royalty.

Then there is my stock in your store at Taft and

at Los Angeles and your stock in my store at Coal-
inga. These matters will all have to be taken up
and straightened out. I will be in Los Angeles
Monday and possibly Tuesday and Mr. Willard
knows where to reach me.

There is just one thing more in closing. In re-
gard to the One thousand dollars worth of work you
say I ask you to do for me, I want to say this—I ask
no favors of you or any man. In other words though
I don't weigh any 200 lbs. I can take care of myself
with any man living.

Very truly yours,
ROBERT E. BOLE.

[Endorsed]: In the United States Patent Office.
E. C. Wilson v. Robert E. Bole, In re Interference
No. 37,126. Wilson Exhibit Bole Letter of Janu-
ary 17, 1913. May 28, 1914. I. Benjamin, Notary
Public. B-19—Eq. U. S. Dist. Court, So. Dist.
Cal., So. Div. Bole et al. vs Wilson & Willard Mfg.
Co. et al. Defts.' Exh. (as above). Filed Mar. 23,
1915. Wm. M. Van Dyke, Clerk. Leslie S. Colyer,
Deputy. [686]

**[Defendants' Exhibit 3—Certified Copy of Records
of Patent Office of Declaration of Interference.]**

UNITED STATES OF AMERICA,
Department of the Interior,
United States Patent Office.

To all to whom these presents shall come, Greeting:
THIS IS TO CERTIFY that the annexed is a true
copy from the Records of this Office of the Declara-

tion of Interference, dated January 21, 1914, Preliminary Statement of Elihu C. Wilson, filed March 12, 1914 and Preliminary Statement of Robert E. Bole, filed March 9, 1914, in the matter of Interference. Number 37,126.

Wilson

vs.

Bole

Subject-Matter:

Underreamer.

IN TESTIMONY WHEREOF I have hereunto set my hand and caused the seal of the Patent Office to be affixed at the City of Washington, this 8th day of December, in the year of our Lord one thousand nine hundred and fourteen and of the Independence of the United States of America the one hundred and thirty-ninth.

[Patent Office Seal]

J. T. NEWTON,

Commissioner of Patents.

10¢ Internal Revenue Stamp canceled. C. S. C.
12/8/14. [687]

2—251.

Letter No.——

Room No. 378

Address only

“The Commissioner of Patents,
Washington, D. C.”

Department of the Interior,

UNITED STATES PATENT OFFICE,
Washington, D. C.

Jan. 21, 1914.

EXAMINER OF INTERFERENCES:

An interference is found to exist between the fol-

lowing cases, and in respect to the invention therein specified, to wit:

CASES.

1. Name—Elihu C. Wilson.

Post-office address—c/o Wilson & Willard
Mfg. Co., 15th St. and Santa Fe Ave., Los
Angeles, Cal.

Title—Under-reamers.

Filed—Mar. 18, 1913, Ser. No. 755,170, Pat'd No.
Attorney—Raymond I. Blakeslee, of California
Bldg., Los Angeles, Cal.

Associate Att'y.— of

Assignee— of

2. Name—Robert E. Bole,

Post-office address—1114 W. 16th St., Los An-
geles, Calif.,

Title—Under-reamer.

Filed—Feb. 19, 1913, Ser. No. 749,343, Pat'd Dec.
2, 1913, No. 1,080,135,

Attorney—Lyon & Hackley, of Merchants'
Trust Bldg., Los Angeles, Calif.

Associate Att'y.— of

Assignee—Edward Double, of Los Angeles,
INTF. NUMBER 37126.

3. Name— _____

INTF. DECLARED FEB. 3, 1914.

Post-office address _____

STATEMENTS DUE MAR. 16, 1914.

Title— _____

Filed— Ser. No. Pat'd No.

Attorney— of

Associate Att'y.— of

Assignee— of

6-2610

INVENTION.

Count 1. An under-reamer comprising a body having a central bore, a rod or mandrel mounted in said bore, said body provided [688] with a slot, said rod provided with a longitudinal slot, a key or gib mounted in said slot, and provided with a downwardly projecting portion adapted to contact with the wall of the central bore below said slot and prevent lateral displacement of the key from either side of the slot, a spring mounted on said gib and operatively connected with said rod, said rod provided at its lower end with a bit engaging head or key.

Ex'r of Intf—2.

Wilson v. Bole.

Count 2. An under-reamer comprising a body having a central bore, a rod mounted to reciprocate in said bore, said body and rod provided with slots, a key mounted in said slots, said key having a projection or wing projecting downward from the slot of the body into the central bore, and preventing lateral motion of the key, a spring mounted on said key and coiled about said rod, means at the upper end of said rod adjustably connecting said rod and spring, means at the lower end of said rod for engaging and supporting the bits or cutters, and cutters or bits.

Count 3. An under-reamer comprising a body having a central bore, a rod or mandrel mounted in said bore, said body and rod provided with registering slots, a key or gib mounted in said slots, and having a projection or wing fitting within the bore of said mandrel below said slots and shouldering against the wall upon transverse movement in either direction, a spring mounted on said gib and oper-

atively connected with said rod, said rod provided at its lower end with bit engaging and supporting means, said rod being enlarged at its lower end and provided with surfaces adapted to support the inner ends of the bits or cutters, and bits or cutters mounted on said rod.

Count 4. An under-reamer comprising a body, having a central bore, a rod or mandrel mounted in said bore, said body and rod provided with registering slots, a key or gib mounted in said slots, the slot in the rod being of sufficient longitudinal extension to permit the movement of said rod longitudinally of said body, a key or gib loosely mounted in said slots and having a projection or wing projecting downward into the central bore below the walls of the slot in the body, and anchoring said key or gib against movement transversely of said body, a spring mounted on said gib and operatively connected with said rod, said rod provided at its lower end with bit engaging means, bits tilting carried thereby, and bearings for the inner faces of said bits formed on said rod and adapted to prevent lateral displacement of said bits.

Count 5. An under-reamer comprising a body having a central bore, a rod mounted in said bore, said body and rod provided with registering slots, a key or gib loosely mounted in said slots and having means at the bottom for anchoring in said body, a spring surrounding said rod and connected thereto at the top thereof, and operatively connected to said key at its lower end, said rod provided with bit engaging means.

Count 6. An under-reamer comprising a body having a central bore, a spring actuated rod mounted in said bore, said rod provided with bit carrying means, and a key loosely mounted in said body and held therein by the tension of said spring.

Count 7. An under-reamer comprising a hollow body, a spring actuated rod mounted therein and provided with bit carrying [689] means, and a key loosely mounted in said body and operatively connecting said rod and body.

Count 8. An under-reamer comprising a hollow body, a reciprocating rod, a spring and a key operatively mounting said rod in said body, said key fitting loosely in said body and held therein by spring tension on the top, and means preventing the key sliding laterally in the body without overcoming the downward pressure of the spring on the key.

Ex'r. of Intf.—3.

Wilson v. Bole.

The relation of the counts of the interference to the claims of the respective parties is as follows:

Counts.	Wilson.			Bole.		
1	.	.	.	10	.	1
2	.	.	.	9	.	2
3	.	.	.	8	.	3
4	.	.	.	14	.	4
5	.	.	.	7	.	5
6	.	.	.	11	.	6
7	.	.	.	12	.	7
8	.	.	.	13	.	8

G. R. IDE,
Examiner, Division 38.

Counts Compared.

MKP

C. M. S.

E. E. G. [690]

37126—5

STATEMENT OF WILSON.

FILED March 12, 1914.

APPROVED March 20, 1914.

D.

IN THE UNITED STATES PATENT OFFICE.

INTERFERENCE NO. 37,126.

ELIHU C. WILSON

vs.

ROBERT E. BOLE.

INTERFERENCE NO. 37,126.

SUBJECT MATTER: UNDER-REAMERS.

PRELIMINARY STATEMENT OF ELIHU C.
WILSON.

State of California,

County of Los Angeles,—ss.

Elihu C. Wilson, of Los Angeles, County of Los Angeles, and State of California, being duly sworn, deposes and says: That he is a party to the Interference declared by the Commissioner of Patents February 3, 1914, between his application for Letters Patent for Under-reamers, filed March 18, 1913, Serial Number 755,170, and a patent for Under-reamers issued to Robert E. Bole, of Los Angeles, California, December 2, 1913, Number 1,080,135, issued upon an application filed February 19, 1913, Serial Number 749,343; that deponent conceived the invention set forth in the Declaration of Interfer-

ence on or about January 26, 1911; that he first made drawings of the invention on or about February 1, 1911, and April 22, 1911; that he first explained the invention to others on or about February 3, 1911; that he first embodied the invention in a full size device work upon which was commenced on February 3, 1911, and which was completed on or about March 8, 1911, and that the said device was first successfully operated at or near Edgemont, South [691] Dakota, on or about June 29, 1911, and that prior to said last mentioned date he embodied said invention in another full size device work upon which was commenced on or about the 11th day of March, 1911, and which was completed on or about the 27th day of April, 1911, and which was first successfully operated on or about the 29th day of May, 1911, at or near Kerto, California; that he has made or caused to be made at least three hundred and sixty-one (361) embodiments of said invention or under-reamers containing said invention, most of which have been sold by or for him at Los Angeles, California, and other points; and that no foreign patent application for the said invention has been filed by him or his representatives or assigns prior to the filing date of his above identified patent application, Serial Number 755,170.

ELIHU C. WILSON.

Subscribed and sworn to before me this 6th day of March, 1914, at Los Angeles, County of Los Angeles, and State of California.

[Seal]

W. F. COOK,

Notary Public in and for Said Los Angeles County,
State of California.

C. M. S.

E. E. G. [692]

37126—3

STATEMENT OF Bole.

FILED March 9, 1914.

APPROVED March 20, 1914.

D.

IN THE UNITED STATES PATENT OFFICE.

WILSON

vs.

BOLE.

INTERFERENCE NO. 37,126,

SUBJECT MATTER: UNDER-REAMER.

PRELIMINARY STATEMENT OF ROBERT E.
BOLE.

Robert E. Bole, of Los Angeles, in the County of Los Angeles, and State of California, being duly sworn, deposes and says:

That he is a party to the Interference declared by the Commissioner of Patents February 3rd, 1914, between said Bole's Letters Patent No. 1,080,135, patented December 2nd, 1913, (application filed February 19th, 1913, Serial No. 749,343), and an application for Under-reamers, filed by Elihu C. Wilson, of Los Angeles, in the County of Los Angeles, and State

of California; that affiant conceived the invention set forth in the Declaration of Interference between September 12th and September 20th, 1908; that between September 12th and September 20th, 1908, affiant first made a drawing of the invention and explained the same to others; that said drawing was sent, with an order for an under-reamer to be built in accordance therewith, to Wilson & Willard Manufacturing Company, of Los Angeles, California, which letter and order are believed to be among the records of said Wilson & Willard Manufacturing Company, of which Company said Elihu C. Wilson has at all times been president and has been owner of approximately one half of the issued capital stock [693] thereof; that said invention was reduced to practice by said Wilson & Willard Manufacturing Company and that without access to the records of said Company, which are in the control of said Elihu C. Wilson, affiant is unable to state definitely the date of commencement of making the first of such under-reamers or the date of its first completion or first trial or use; that many other under-reamers embodying said invention have been manufactured and sold, but the extent of such manufacture and sale is among the records of said Wilson & Willard Manufacturing Company which are not accessible to affiant, being in the control of said Elihu C. Wilson.

ROBERT E. BOLE.

Subscribed and sworn to before me this 2d day of March, 1914.

[Seal] LORRAINE E. DURROW,
Notary Public in and for Los Angeles County, State
of California.

C. M. S.

E. E. G.

[Endorsed]: B-19—Eq. U. S. Dist. Court, So.
Dist. of Cal., So. Div. Robert E. Bole et al., vs. Wil-
son & Willard Mfg. Co et al. Defts. Exh. 3. Filed
Mar. 24, 1915. Wm. M. Van Dyke, Clerk. Leslie
S. Colyer, Deputy. [694]



(Depts' Exh 4)

TEE BAR															NEED PLUG & BR. 2 (15)															SPRING															N.L. 3075		N.L. 3075	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27																						

WILSON & WILLARD MFG. CO

8/10/1911.

From Trade: 111 500000

Kerto - Kat -

5/24/11

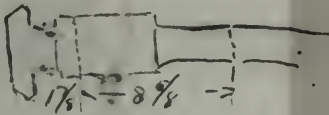
E. F. Grigsby.

- 1 10" Reamer Body #446, 3x4x7 Pin.
to take the place of Reamer #326.
1 10" Slotted Tee (new style)
1 Small lever for removing Key.

1 1/4" Slot to bearing

The above is shipped. notify Mr. Turner of Mon.

مفت



June 12, 1914

*Hypocissus
notata*

Pres. Eliot's Memorial Committee
Circular No. 4.

U.S. Post Office
 (Post Office) du Latimer
 Price } no 37126

FILIP

MAR 24 1915

Depth 511.
(as above)

W. S. Paul. Grant
do. Dist. Court.
do. Sec.

W. S. Paul.
W. S. Paul and W. S. Paul

[illegible]

21.0 Patent Office

William D. Schaeffer

Ms 37126

Index)

Also Exhibit 3
Exhibit 3

June 12, 1910

Thymus

B. 1959 May 19
1959

To Richd. Earl.
To Geo. Earl.

Bole et al.

Wilson Thieland

Why too it ad.

Page 211
(do along)

1. **LAK**

Feble & party only

Letter 6.9.1

Letter 6.9.1

POLYMER LETTERS EDITION 100



1. **SALES**

SHOP ORDER

WILSON & WILLARD MFG. CO

Date: _____

8/13/11.

Cherry to

Horbeck & Nicholson Co.,

Ship to

Edgemont, S. D.

Freight.

Ship via

1 8" Wilson Under-reamer 170.
with 2 1/2 x 3/4 - 7 flat 1 1/2 H thread
OWS pattern - 4" square.
2 ex. sets of 8" outturn.

Note: The above runner to be new style with honey slotted too.

See sketch of tee. specialist + etc.

E. F. Crosby.

Speed
not at right angle
crossing

Shipped 6/17-11
Driver Sandy
Route Sp Fr

6014 E
 M. J. Dietrich
 to. Dietrich, Cal.
 So. Div.
 1301 2nd St. S.
 Wilson & Willard Mfg. Co. et al.
 Dept. of Engrg.

MAY 1915

Chas. M. Y. Co.
 1301 2nd St. S.
 Wilson & Willard Mfg. Co. et al.
 Dept. of Engrg.

June 12, 1914
 Mr. & Mrs. J. M. Y. Co.
 1301 2nd St. S.
 Wilson & Willard Mfg. Co. et al.
 Dept. of Engrg.

6904

6904

Ramsey & Co.

Chang & Co. Ramsey & Co.

ENTERED

MILLING

8-14-1911

12
over 1000
H. C. Wiley, Esq. "D. C. Wiley"

Order No. 7

4069

No. History.

D. W.

POREBLANI

KL/SEATER

Date _____

E. J. Tarr
1964

Order No.

2011 January 20

de. Floor.

2.

NOTES

FITTING

$$3 \div 6 = 1/2$$

Academy 120

Order No. 1226

Order No. 120 Job 6904
8" Business

7

3

INTERVIEW

DRILLING

Date 2-1-19

Name Ant Tourist

Order No. 120

08" Raver

Mr. Hester

O. K.

000000

DRILLING

Date _____

Name Art Davis

Order No. 120 Job

Dear Sir,

5069

No. Hours

D. K.

of cases

[illegible]

APPRENTICE

Order No. 120 Date 2-20-11
 Name E. Berken
 Article 6904
 No. Pieces
 Operation Key seating reamer.

ON	OFF	ON	OFF	ON	OFF
Learning to run mach.					

No. Hours 3 $\frac{3}{4}$ O. K. 15 Foreman

HELPER

Order No. 120 Date 78
 Name greasy
 Article
 No. Pieces Moving Reamer
 Operation # 1208

ON	OFF	ON	OFF	ON	OFF
6904					

No. Hours $\frac{1}{4}$ O. K. 15 Foreman

FORGE

Order No. 6904 Date Febr. 9 1911
 Name F. Rydgren
 Article Annalating under
 No. Pieces reamer #120
 Operation

ON	OFF	ON	OFF	ON	OFF
100 1100					

No. Hours 1 O. K. 15

FITTING

Order No. 120 Date 2-27-11
 Name Aut. Tourist
 Article 8 Reamer
 No. Pieces
 Operation

ON	OFF	ON	OFF	ON	OFF
<u>659</u>	<u>8$\frac{3}{4}$</u>	<u>325</u>	<u>352</u>		
120 6904					

No. Hours 3 O. K. 15

FITTING

Order No. 120 Date 2-22-11
 Name A. H. H. H. H. H.
 Article 8" Reamer
 No. Pieces 6904
 Operation 6904

ON	OFF	ON	OFF	ON	OFF
W 851	W 924				

No. Hours 3/4 O. K. 15
 Foreman

HELP

Order No. 6904
 Name Chas. H. H. H. H.
 Article Coil spring
 No. Pieces 6904
 Operation 6904

This spring also needed
8 temp

ON	OFF	ON	OFF	ON	OFF
SA 648	SA 630				
3 1/2	2				

No. Hours 5 3/4 O. K. K
 Foreman

FITTING

Order No. 120 Date 2-21-11
 Name A. H. H. H. H.
 Article 8" Reamer
 No. Pieces 6904
 Operation 6904

ON	OFF	ON	OFF	ON	OFF
P 1202	P 113				

No. Hours 15 O. K. 15
 Foreman

FITTING

Order No. 120 Date 2-24-11
 Name A. H. H. H. H.
 Article 8" Reamer
 No. Pieces 6904
 Operation 6904

ON	OFF	ON	OFF	ON	OFF
P 652	P 829	P 1116	P 1202		

No. Hours 27 O. K. 15
 Foreman

FITTING

Order No. 120 Date 2-28-41
Name Submarine
Article 8 Reamer
No. Pieces
Operation 8904

ON	OFF	ON	OFF	ON	OFF
<p> 155 <u>1</u> </p>			<p> 4 <u>4</u> </p>		

No. Mens. $2\frac{1}{2}$ O. K. 15 Foreman

HELPER

Order No. 6984 Date 2/9/11
Name Chas Davis
Article inninging under
No. Pieces manuscript 170
Operation _____

ON	OFF	ON	OFF	ON	OFF
F 1005	F 1105				

No. Hours 1 O. K. 1 **Fereman**

FITTING

Order No. 120 Date 3-4-11
Name Am. Tourist
Article 8" Resistor
No. Pieces 6984
Operation _____

ON	OFF	ON	OFF	ON	OFF
SA 653	SA 753				

No. Hours 1 O. K. 15 Foreman

FORGE

Order No. 6904 Date Feb. 25th 1911
Name F. Rysgren
Article Coil Spring & Key
No. Pieces
Operation This spring also
warranted a temporary.

ON	OFF	ON	OFF	ON	OFF
7701				96	

No. Hours 5 $\frac{3}{4}$ O. K. 75 Form

LATHE

Order No. _____ Date 2/15/11
 Name Wade
 Article 8" Floor Reamer #120
 No. Pieces 6904
 Operation _____

ON	OFF	ON	OFF	ON	OFF
655	1218	111			

No. Hours 7 1/2 O. K. IF Foreman _____

20

PLANER

Order No. _____ Date Feb 11
 Name J.H. Bloom
 Article 8" Reamer
 No. Pieces _____
 Operation 6904

ON	OFF	ON	OFF	ON	OFF

No. Hours 1 1/2 O. K. IF Foreman _____

19

PLANER

Shaper

Order No. _____ Date 2-23-11
 Name J. Wells
 Article Reamer #120
 No. Pieces 6904
 Operation _____

ON	OFF	ON	OFF	ON	OFF

No. Hours 1 O. K. IF Foreman _____

FITTING

Order No. 6904 Date 2-7-11
 Name J. Woody
 Article Reamer
 No. Pieces _____
 Operation Fitting

ON	OFF	ON	OFF	ON	OFF

No. Hours 1 1/2 O. K. IF Foreman _____

21

FORGE

Order No. _____ Date April 14 1911
 Name F. Rydgren
 Article Hardish under
 No. Pieces runner # 120
 Operation 6904

ON	OFF	ON	OFF	ON	OFF

No. Hours 1 O.K. 15
 Foreman _____

FORGE

Order No. 6904 Date Feb 22, 11
 Name F. Rydgren
 Article key
 No. Pieces _____
 Operation _____

ON	OFF	ON	OFF	ON	OFF

No. Hours 7 O.K. 11
 Foreman _____

HELPER

Order No. _____ Date 4/14/11
 Name Chas Zerg
 Article Hardish under
 No. Pieces runner # 120
 Operation 6904

ON	OFF	ON	OFF	ON	OFF

No. Hours 1 O.K. 15
 Foreman _____

6904 **PLANER** *Shaper*

Order No. _____ Date *2-25-11*
Name *J. Wells*
Article *Planer 120*
No. Pieces _____
Operation *Key & etc*

ON	OFF	ON	OFF	ON	OFF
<div>CONTRACT NOV 16 1911 U.S. PATENT OFFICE</div>					

No. Hours *1 1/2* O.K. *K*

FORGE

Order No. *6904* Date *Feb 22 1911*
Name *J. Wells*
Article *Key*
No. Pieces _____
Operation _____

ON	OFF	ON	OFF	ON	OFF
TH 8 09	TH 8 33				

No. Hours *1 1/2* O.K. *K*

FORGE

Order No. *6904* Date *Feb 22 1911*
Name *J. Wells*
Article *Key*
No. Pieces _____
Operation _____

ON	OFF	ON	OFF	ON	OFF
W 3 55	W 4 14				

No. Hours _____ O.K. *K*
Foreman _____

ON	OFF	ON	OFF	ON	OFF
TH 8 09	TH 8 33				

No. Hours *1 1/2* O.K. *K*
Foreman _____

HELPER

Order No. 594 Date 2/22/11Name Chas. KingArticle RayNo. Pieces 1Operation

ON	OFF	ON	OFF	ON	OFF
<u>3:58</u>	<u>4:14</u>				

No. Hours 1 1/2 O. K. ✓

Foreman

813

ORDER RECEIVED FROM

SHOP ORDER

WILSON & WILLARD MFG. CO.

DATE

Date

Charge to

Spring to Throat

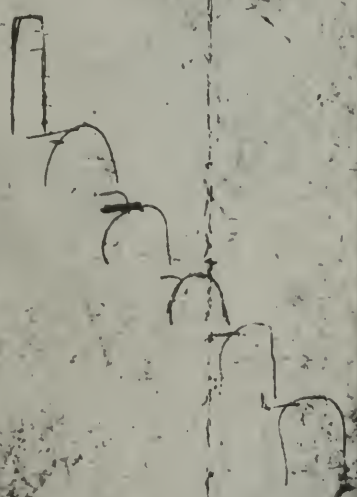
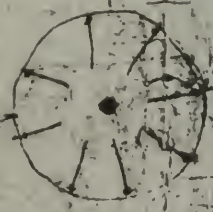
7056

Ship to

7056

PURCHASER'S ORDER

Ship via



Spring

ORDER RECEIVED FROM . . . WILSON & WILLARD MFG. CO.

SHOP ORDER,

Date 7/19/77

Charge to CC BY a/c

Ship to

Ship via

056
FOREMAN'S O. R.

SALESMAN

Torg & Machine 1 special 8" slotted
acc 3 nickel stool.
Coil 3 special spring for same.
" 3

O. K.	<u>3/8/77</u>
Date	
Foreman	<u>H</u>

SHOP ORDER,

WILSON & WILLARD MFG. CO.

Date 7/21/11

Charge to

Ship to

Ship via

6904

3

Change 8" diam. 120.
 Anneal same & remill to give
 size 8" pattern.
 Bore out a hole for spring to 4"
 diameter.
 Make special $\frac{7}{16} \times \frac{3}{4} \times 8$ " pin.
 Put in bottom bolt.
 Equip with extra heavy slot & 2.
 of new type, same to be made of
 nickel steel.

4/22/11
K

MATERIAL

Date Feb 23 1911Order No. 6904 Job Key $2\frac{5}{8} \times 2\frac{1}{2}$ Nickel steel 3 lbsF. Rydgren

Bearer

O. K.

Foreman

In the United States District Office
 C.C. Wilson *Interference*
 No. 37,126
 Robert E. Bole

Mission Exhibit February
 1911 Shop Record & Slogs Wilson
 and Willard Manufacturing
 Company Shop Record Slogs
 May 23, 1914

W. H. W. W.
 Notary Public

0319 Eq.
 U.S. Dist. Court
 So. Dist. of Cal.
 So. Dist.
 So. Dist.

Wilson & Willard Mfg. Co.
 et al.

(Dorsed) 0319 Eq. U. S. Dist. Court, So. Dist. Cal. So.
 v. Bole et al. vs. Wilson & Willard Mfg. Co. et al. Defts
 7 Filed Mar 24 1915 W. H. VAN DYKE, Clerk, Leslie
 Colyer, Deputy.

File 3

Re: Robert Nelson Cross
Examination Exhibit No. 1

June 12, 1914

1898
do Dist. Court
do Dist. Court
do Dist. Court

FILED
Adrian, Michigan
March 24, 1915

Wm. M. Van Dyke, Clerk
U.S. District Court

7056

7056

Received

For the master of the
boat registered at

ENTERED

Order No. 7056 Job Cold spring
13 ft. of 5" 0 Spring steel

F. Rydgren O.K. ☒ Foreman

Job Cold spring
13 ft. of 5" 0 Spring steel

F. Rydgren O.K. ☒ Foreman

LATHE
Order No. 7056 Job 2-27-11
Name H. H. Hall
Article Small Bar
No. Pieces
Operation

ON	OFF	ON	OFF	ON	OFF
7:00	7:15	11:11	11:21		

No. Hours 1 3/4

MATERIAL
Order No. 7056 Job 1 - Special 8" Tee
95 lbs of 4 1/4 inch x 1/2 inch steel

Remerio - 118 O.K. ☒ Foreman

MATERIAL
Order No. 7056 Job

1 - 13/8" Hex nut -
For special 703 or
Apprentice O.K. ☒ Foreman

LATHE

Order No. 7056 Date 2-21-11
 Name Highfield
 Article Special T Bar
 No. Pieces
 Operation

ON	OFF	ON	OFF	ON	OFF

No. Hours 5 O. K. 15 Foreman

LATHE

Order No. 7056 Date 2-25-11
 Name Highfield
 Article 1/2" Spring on T Bar
 No. Pieces
 Operation

ON	OFF	ON	OFF	ON	OFF

No. Hours 1/4 O. K. 15 Foreman

LATHE

Order No. 7056 Date 2-21-11
 Name Co. To Co.
 Article T Bar
 No. Pieces
 Operation

ON	OFF	ON	OFF	ON	OFF

No. Hours 1/2 O. K. 15 Foreman

FITTING

Order No. 7056 Date 2-22-11
 Name Aultman
 Article 8" Tee Bar
 No. Pieces
 Operation

ON	OFF	ON	OFF	ON	OFF

No. Hours 1 3/4 O. K. 15 Foreman

PLUMBER *Chapman*

Order No. *7056* Date *2-22-11*
 Name *Jurles*
 Article *Special 8"*
 No. Pieces *7 & bar*
 Operation _____

ON	OFF	ON	OFF	ON	OFF

No. Hours *3 1/4* O. K. *15* Foreman _____

HELPER

Order No. *7056* Date *2/22/11*
 Name *Chas Berg*
 Article *Cork spring*
 No. Pieces _____
 Operation _____

ON	OFF	ON	OFF	ON	OFF

No. Hours *7 56* O. K. *15*

8" Ter Bar

O. K. *15*

Foreman

HELPER

Order No. *7056* Date *2/21/11*
 Name *Chas Berg*
 Article *Cork spring*
 No. Pieces _____
 Operation _____

ON	OFF	ON	OFF	ON	OFF

No. Hours *4 1/4* O. K. *15*

HELPER

2053 Date 3/5/77

Chas. H. L. ...

.....

Fluorescence

Operations

ON	OFF	ON	OFF	ON	OFF
# 652					

No. Hours..... O. K. *✓*

Foreman

HELPER

Order No. 7856 Date 2-18-11

Name John C. Kelly

Article 18: special Net Bar

No. Piece

Operation

ON	OFF	ON	OFF	ON	OFF
1031	3A 1230	3A 1230		231	

8 1/2 O.K. /

Persons

FORGE

Order No. 4026 Date 2-18-11

Name.....Char Romero

Article..... 8th Special 755 Bm

No. Pieces

Operation

[illegible]

No. Hours..... O. K.

O. K.

.....
F.....

13

HELPER

Order No. 7056 Date 2-18-11

Name 405/3ackers

Article 8" Special / EE/3a

No. Pieces

Operation

ON	OFF	ON	OFF	ON	OFF

No. Hours..... O. K.

O. K.

Program

17

Order No. 7056 Date Feb 18 1911

Name Wm Condon

Article 8" special Test Bar

No. Pieces

Operation

ON	OFF	ON	OFF	ON	OFF
1053	1230	1230	231		

No. Hours 3 1/2 O. K. 15 Foreman

FORGE

Order No. 7056 Date March 1911

Name F. Rydgren

Article Coil spring

No. Pieces

Operation

ON	OFF	ON	OFF	ON	OFF

No. Hours 4 1/2 O. K. 15 Foreman

19

FORGE

Order No. 7056 Date Feb 21 1911

Name F. Rydgren

Article Coil spring

No. Pieces

Operation

ON	OFF	ON	OFF	ON	OFF
1053	1118	1229	13	1229	449

No. Hours 4 1/4 O. K. 15 Foreman

FORGE

Order No. 7056 Date Febr 22 1911

Name F. Rydgren

Article Coil spring

No. Pieces

Operation

ON	OFF	ON	OFF	ON	OFF

No. Hours 3 1/4 O. K. 15 Foreman

21

St. O. Patent Office

E. C. Wilson } In Discrepancy

No. 97126

Robert E. Poles

Milner Exhibit Draft Single Piece Key
Reproduction Sketch.

June 23, 1914. J. Bryson
Notary Public.

B19E
U. S. Dist. Court
S. Dist. Cal.

vs. Boh et al.

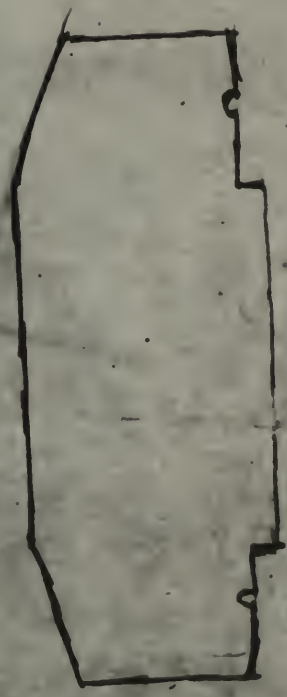
Wilson & Willard
Mfg. Co. et al.

Def'ts Exh. (as above)

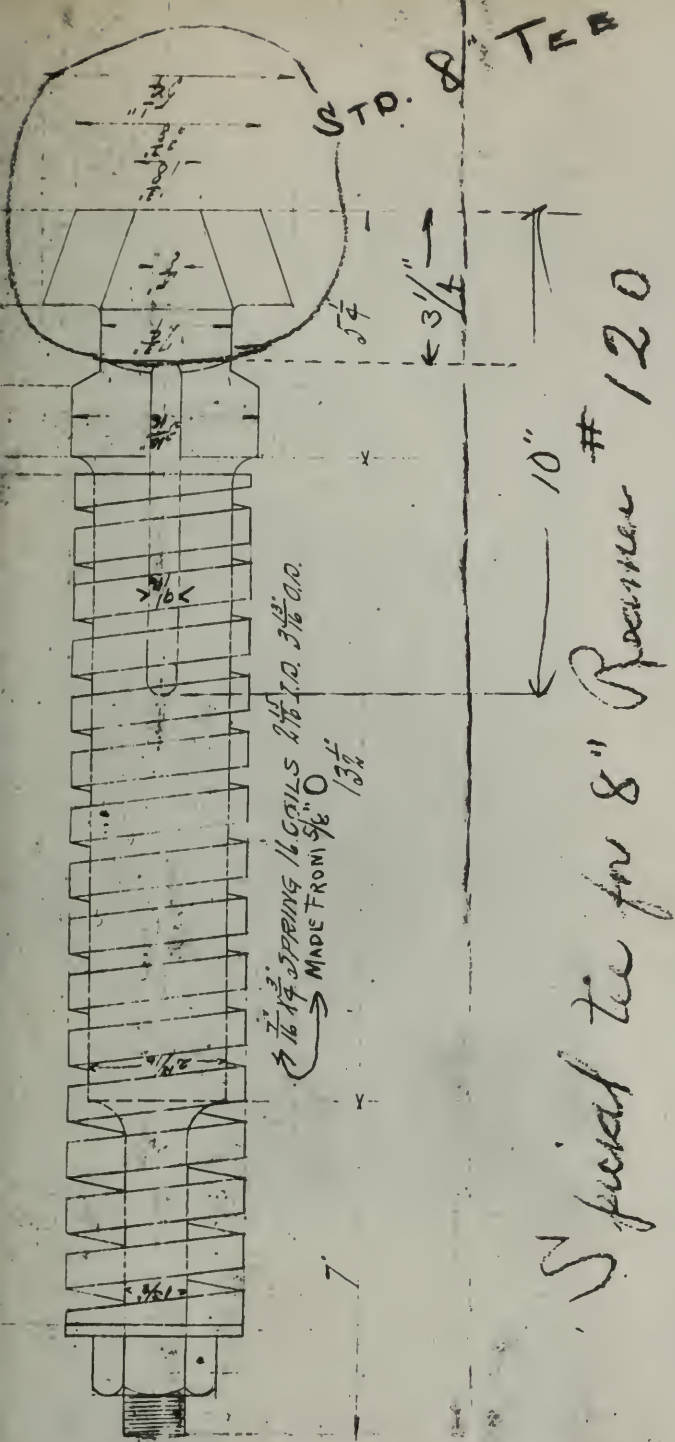
FILED

MAR 24 1915

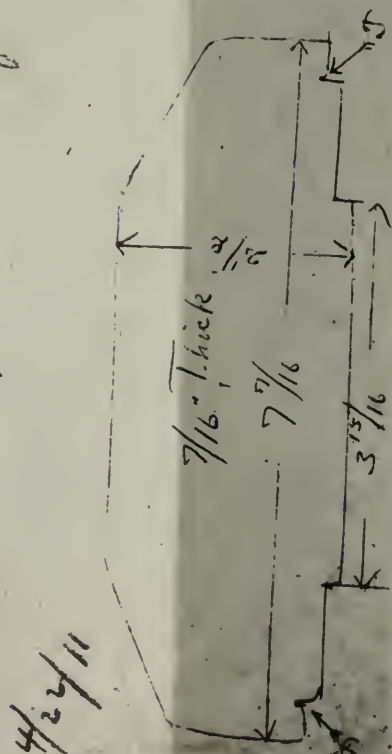
Wm. M. Vign Dylke, Clerk
Federal J. Courthouse



DOCKET CLERK
NOV 16 1914
U. S. PATENT OFFICE



Special tee for 8" Røssner # 120



In the United States Patent Office

Wilson } In re Interference
No. 37126

Robert E. Boyle }
Wilson Exhibit Wilson Reamer
Key and Tee sketch of 1911

May 29, 1914

J. Bryan
Attorney Public

Wilson vs. Willard Mfg. Co.
et al.

Deft's Exh. (as to 4/28/11)
FILED

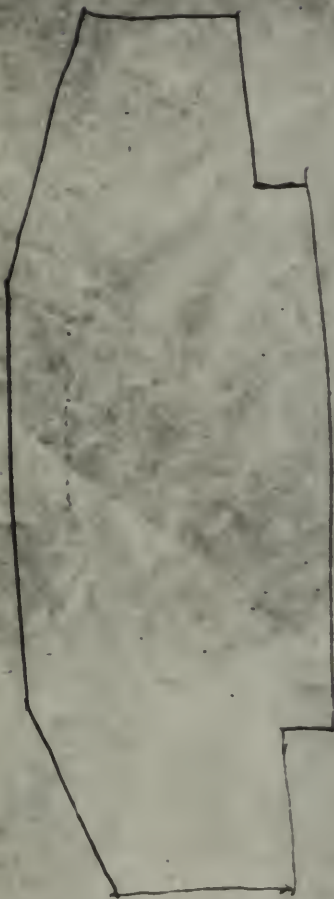
MAR 24 1915

Wm. M. Van Dyke, Clerk
Lester H. Hays, Deputy

Memorandum

Letter from Pat. Sec. Work. Dated 4/28/11
in reply to our letter of 1/26/11 was the commencement
of plan to change to slotted Tee & make Key type
Exh.

Key made on 6904-R1859-work



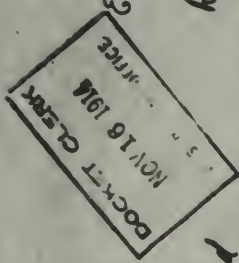
B19 E
U. S. Dist. Court,
So Dist. Cal.
So. Div.

Stole et al.

vs.
Wilcox & Wilcox
Wfy. Co. et al.

FILED

Draft Exh.



U. S. Patent Office
 E. C. Nelson } In Interference
 " } No. 37126

Robert E. Paley
 Nelson's Exhibit Chas E. Nelson Key
 Reproduction Hatched

June 19, 1914

W. P. Johnson
 Attorney at Law

MAR 2 1915

M. Van I
 J. C. Boyer

U. S. Patent Office
E. C. Wilson } In Interference
Robert E. Bole } No. 7714

Wilson Exhibit W.W. Wilson Key
Reproduction Sketch
June 17, 1914 J. H. Ferguson
Writing Public

DOCKET CLERK
NOV 16 1914
U. S. PATENT OFFICE

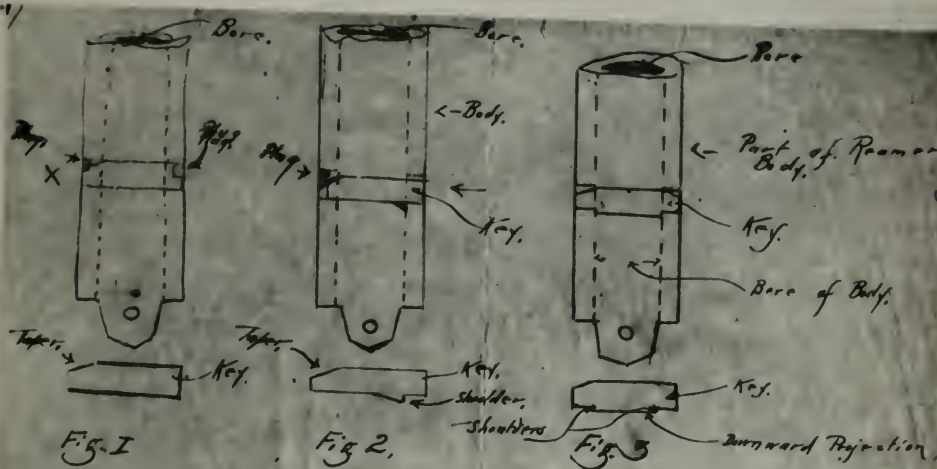
319 E.
U.S. Dist. Court
S. Dist. Cal.
Bole et al.
vs
Wilson, Willard & Co. et al.
Def'ts: Epl (as above)
FILED

MAR 25 1915

Wm. M. Van Dyke, Clerk
Lester C. Colyer, Deputy



Sketch of Key as described in the
specification.



In the United States Patent Office

E. C. Milani

Robert E. Bale

On re Interference
No. 37, 126

No. 37, 12c

Wilson Exhibit - Wilson Reproduction
Sketch of Sketches of late January
and early February, 1911

Sketch of sketches: of late January
and early February, 1911

and early February, 1911

May 28, 1914.

J. Benjamin
Notary Public

Notary Public

B. 19 E.
U. of Dist. Expt.
So. Dist. Expt.
So. Dist.
Col. et al.
Wilson & Kellard
Taff Co. et al.
Depts. Expt.

U. S. Dist. Court

50. Dix

Col. J.

Wm. H. & Co. etc.

Wilson & Co. et al.

Sept. 1894.

FILED

MAR 25 1915

Wm. M. Van Dyke, Clerk
Leslie S. Taylor Deputy

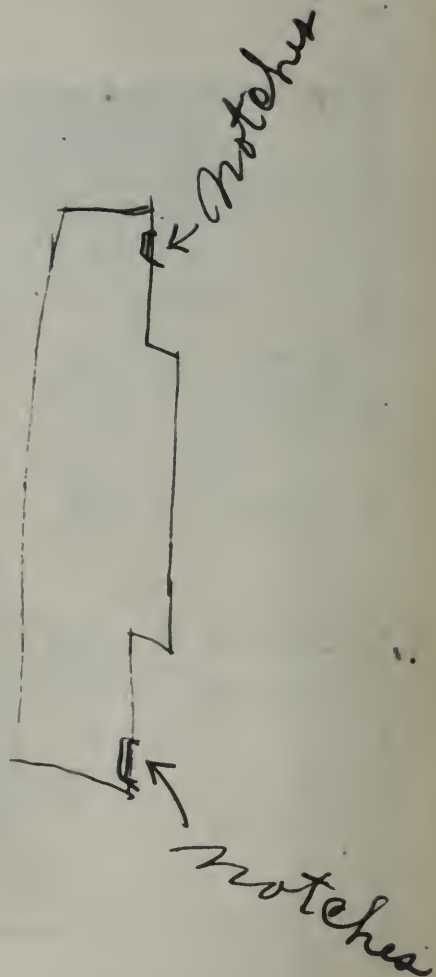
Leslie S. Solger Deputy

B19 Eq
 U. S. Dist. Court
 So. Dist. Cal.
 So. Div.
Bole et al.
 vs
Wilson & Willard
Mfg. Co. et al.
 Defts' Exh. 10.

FILED

MAR 25 1915

Wm. M. Van Dyke, Clerk
Leslie S. Colyer Deputy



1915
 U. S. Dist Court
 So. Dist Cal.
 So. Div
 Bole et al.
 vs.
 Wilson & Willard
 Mfg. Co et al.
 Defts' Exh. 13

FILED

MAR 27 1915

Wm. M. Van Dyke, Clerk

Lester S. Colby Deputy

507

118

U. S. Patent Office
E. C. Wilson } Interference
 } No 97126
Robert R. Pole }

Pole Exhibit Wilson
Cross Examination
Exhibit 6

June 15, 1914

W. H. Van Dyke
Clerk

W. H. Van Dyke, Clerk
Sealed & Delivered

MAR 27 1915

FILED
U.S. Pat. Off.
Dep't. of Com.
Mar. 27, 1915

Serial # 1703
31988
out 11
out 10

709

709

Drilling and Fitting

Name Boe
 Order No. 709 Job 13
95% Reamer

Date Sept 17 1908
 Rate

No. Hours 4O. K. ☒

Foreman

Machinist

Name Boe
 Order No. 709 Job 173
95% Reamer

Date Sept 13 1908
 Rate

No. Hours 4O. K. ☒

Foreman

Machinist

Name Boe
 Order No. 709 Job 173
95% Reamer

Date Sept 22nd 08
 Rate

Machinist

Name J. G. Dopelhoff
 Order No. 709 Job 13
Milling 95% Reamer #173

Date 9/17, 1908

Rate

No. Hours 2 1/2O. K. ☒

Machinist

Name J. G. Dopelhoff
 Order No. 709 Job 13

Date 9/17No. Hours 9O. K. ☒

Apprentice

Name J. Reynolds
 Order No. 709 Job Drilling
Reamer

Date 9-23No. Hours 7 1/2

Machinist

Name J. G. Halsh

Order No. 769 Job to 99% Wilson Reamer # 123

Lathe Work

No. Hours 1 1/2

O. K. G

Foreman

Laborers

Name Bennett

Date 9-24 Rate

Order No. 709 Job

Handing Reamer
10 1 force # 173

No. Hours 3 1/2

O. K.

Foreman

Machinist

Name S. G. Piplett

Date 9/24 Rate

Order No. 709 Job

Milling 99% Reamer # 173

No. Hours 4 1/2

O. K. G

Foreman

9-24-08
Eckhart

Reamer # 173

1 force
99% Milling # 173

Foreman

98 Reamer # 173
1 force

Date Sept 18-08

No. Hours 6

O. K.

Foreman

Lathi
Machinist

Name A. Kearney

Date Sept 19-08 Rate

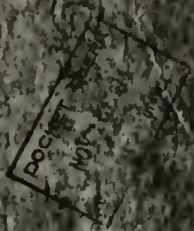
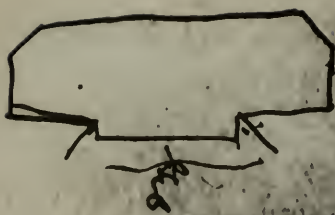
Order No. 709 Job

98 Reamer # 173

O. K.

Foreman





B19 E
 U. S. Dist. Court
 So. Dist. Cal.
 So. Div.
 Robert et al.
 vs.
 Wilson & Willard
 Mfg. Co. et al.
 Deft's Exh. 15

FILED

MAR 27 1915

Wm. M. Van Dyke, Clerk
 Leslie S. Colby, Deputy

H. J. Paterson, Officer
 Jure Elmer, Clerk

Robert C. Pole

Pole's Exhibit Adversely Affects

Sept 30, 1914

J. P. Ryan

[Defendants' Exhibit 16—Certified Copy File-
wrapper Contents and Drawings, Application
of E. C. Wilson, Serial No. 755,170.]

2-390.

UNITED STATES OF AMERICA,

Department of the Interior,

United States Patent Office.

To all to whom these presents shall come, Greeting:

THIS IS TO CERTIFY that the annexed is a
true copy from the Records of this Office of the File
Wrapper, Contents and Drawing in the matter of the

Pending Application of
Elihu C. Wilson,

B-19-Eq.
U. S. Dist. Court, So. Dist.
of Cal. So. Div.
Robt. E. Bole et al.

vs.

Filed March 18, 1913, Serial Number
755,170, for

Improvement in Underreamers.

Wilson & Willard Mfg. Co.
et al. Deft's Exh. 16.
Filed Apr. 12, 1915. Wm.
M. Van Dyke, Clerk. By
Leslie S. Colyer, Deputy.

IN TESTIMONY WHEREOF I have hereunto
set my hand and caused the seal of the Patent Office
to be affixed at the City of Washington, this 12th day
of June, in the year of our Lord one thousand nine
hundred and fourteen and of the Independence of
the United States of America, the one hundred and
thirty-eighth.

[Patent Office Seal] R. F. WHITEHEAD,
Acting Commissioner of Patents.

DIV. 38 2-437

NUMBER (SERIES OF 1900).

1913.

755,170

(EX'R'S BOOK). 265/8-C

PATENT NO.

Name—Elihu C. Wilson,

of Los Angeles,

County of

State of California,

Invention Underreamers.

ORIGINAL.

RENEWED.

Petition	Mar. 18	, 1913	, 191
Affidavit	“ “	, 1913	, 191
Specification	“ “	, 1913	, 191
Drawing	“ “	, 1913	, 191
Photo Copy	Jan. 17/14	, 191	, 191
First Fee Cash \$15, Mar. 18		, 1913	, 191
“ “ Cert.		, 191	, 191
Appl. filed complete Mch. 18		, 1913	, 191
Examined and Passed for Issue		, 191	, 191
Exr. Div.			Exr. Div.
Notice of Allowance		, 191	, 191
By Commissioner.			
Final Fee Cash		, 191	, 191
“ “ Cert.		, 191	, 191
Patented			, 191

Associate Attorney

Attorney—

RAYMOND IVES BLAKESLEE,

California Bl'd'g.

Los Angeles, Cal.

(No. of Claims Allowed) Title as Allowed.

(Cl.) [731]

\$15 RECEIVED

D Mar. 18, 1913

CHIEF CLERK U. S. PATENT OFFICE.

PETITION AND POWER OF ATTORNEY

To the Commissioner of Patents:

Your petitioner, Elihu C. Wilson, a citizen of the United States, and resident of Los Angeles, County of Los Angeles, State of California, whose Post Office address is care of Wilson & Willard Manufacturing Company, Fifteenth Street and Santa Fe Avenue, Los Angeles, California, prays that Letters Patent may be granted to him for the improvements in UNDER-REAMERS, as set forth in the annexed specification; and he hereby appoints Raymond Ives Blakeslee, Registry No. 2794, of 728-29-30 California Building, Second Street and S. Broadway, Los Angeles, Los Angeles County, California, his Attorney, with full power of substitution and revocation, to prosecute this application, to make alterations and amendments therein, to sign the drawings, to receive the patent, and to transact all business in the Patent Office connected therewith.

Signed at Los Angeles, in the County of Los Angeles, State of California, this 26th day of February, 1913.

ELIHU C. WILSON.

SPECIFICATION.

TO ALL WHOM IT MAY CONCERN:

Be it known, that I, Elihu C. Wilson, a citizen of the United States, residing at Los Angeles, in the County of Los Angeles, and State of California, have

invented new and useful improvements in UNDER-REAMERS, of which the following is a specification: [732]

This invention relates to underreamers, such as are employed in enlarging oil well and other well holes to permit the lowering of the casing in the hole following the drilling operation; and the invention constitutes an improvement upon or departure from the invention disclosed in and patented by Letters Patent of the United States issued to me July 31, 1906, for Underreamers, Number 827,595. The present invention relates particularly to the means for holding one end of the spring which is employed in expending the cutters or bits of the reamer into working position. It has been found in practice that the means disclosed in said Letters Patent Number 827,595, while operative and performing the functions required of them, are, under certain conditions, open to certain objections which are overcome by the use and substitution therefor of the means set forth and embodying the present invention.

The present invention has for particular objects the provision of an improved underreamer, and particularly of improved means of the general nature specified as a feature of underreamers, which will be superior in point of simplicity and inexpensiveness of construction, facility in assembling and disconnection of parts and features, durability or length of life, freedom from liability to get out of order in long continued service, and positiveness in operation, and which will be generally superior in efficiency and serviceability.

With the above and other objects in view the invention consists in the novel and useful provision, formation, construction, combination, association and relative arrangement of parts, members and features, all as hereinafter described, shown in the drawing and finally pointed out in claims.

In the drawing: [733]

Figure 1 is a fragmentary vertical sectional view of a portion of a joint of casing such as is employed in well holes with the shoe thereof, and further of the principal features of construction of an improved under-reamer constructed and organized in accordance with the invention, the cutters or bits being in contracted positions;

Figure 2 is a similar view showing the cutters in expanded positions;

Figure 3 is a fragmentary view of the under-reamer with the cutters or bits removed, the view being taken in a line of vision at right angles to that of Figures 1 and 2; and

Figure 4 is a detail transverse sectional view taken upon the line x^4 ——— x^4 , Figure 1, and looking in the direction of the appended arrows.

Corresponding parts in all the Figures are designated by the same reference characters. [734]

Referring with particularity to the drawing, 5 designates the hollow body and A and B the cutters or bits of an underreamer constructed to embody the invention in one form. The underreamer is shown as within the casing 6, and the shoe 7 in Figure 1, and as projected at its lower end beneath the shoe in Figure 2, the cutters being held collapsed in Figure

1, by the shoe and casing, and being in expanded positions in Figure 2, such expansion being *casued* by a coil spring 8 within the hollow body 5 and surrounding a rod or mandrel 9, which plays vertically in the hollow body, the spring being confined between a nut or removable stop 10 at the upper end of the spring actuated rod or mandrel 9, and a key 11 detachably accommodated within a transverse slot 12 in the rod 9 adjacent to the lower end thereof. The slot 12 is elongated longitudinally of the rod, so that the key may remain in relatively fixed position during the longitudinal movement of the rod. A transverse slot 13 in the hollow body 5 permits the insertion and withdrawal of the key. The key 11 is provided with tapered end portions 11^a, and with a bottom extension or head 11^b which fits within the bore of the hollow body 5, being held therein by the tension of the spring 8, and effectually preventing the wedge from displacement. The transverse slot 13 in the body is of a width, as is the slot 12, properly to snugly accommodate the key 11; and the slot 13 is of sufficient height, lengthwise of the body 5, to permit the key with its head 11^b to be inserted and withdrawn, from the slots 12 and 13, in accommodation of the extension or head 11^b. Wedges are employed for both inserting and prying out the key 11, under the pressure of the spring 8, such wedges being inserted between the tapering end or ends 11^a of the key 11. The [735] lower end of the rod 9 has a T-head 9^a entering recesses 14 in the inner faces of the cutters A and B, and permitting the cutters to

D' swing upon the T-head in the collapsing and expanding movements./D' The lower end of the body 5 is bifurcated to form spaced prongs 5^a and 5^b, separated by an open space, within which the T-head 9^a plays, and said prongs have at each edge terminal portions synclinal expansion faces 5^c, producing a violent wedge action upon the cutters, and upper slightly outwardly inclined expansion and thrust-bearing faces 5^d producing final and relatively slight expansion action of the cutters, the cutters being provided with lateral extensions forming shoulders b which coact with these expansion faces 5^c and 5^d, when the cutters are raised by the spring 8 to expand the cutters, and riding over such expansion surfaces when the cutters are drawn down into collapsed positions. These shoulders b also impart some of the thrust of the cutters to the prongs in under-reaming, the remaining portion of the thrust being imparted to thrust bearings c at that portion of the hollow body 5 at which the formation of the prongs 5^a and 5^b commences, Dove-tails 15 are formed at the sides and inner edges of the prongs 5^a and 5^b, coacting with dove-tails 16 upon the sides of the cutters. These dove-tails are so arranged as to allow play to the shank 17 in the collapsing and expanding actions of the cutters. It will be understood that T-head 9^a lies across the space between the prongs 5^a and 5^b, in a plane intermediate of and parallel with the planes of the prongs. A retaining bolt 18 spans the space between the prongs adjacent to the lower ends thereof serving to limit the downward movement of the T-head 9^a and also to prevent

the cutters from falling out beneath [736] the prongs should they become disengaged from the spring actuated rod 9.

The parts are assembled from the lower end of the body 5, by first inserting the spring actuated rod 9 with its spring, then hanging the cutters upon the T-head 9^a and moving them with the rod 9 upwardly, whereupon the key 11 is wedged through the slot 13 into the slot 12, and the head 11^b is seated in the bore of the hollow body 5 which it closely fits. When it is desired to disconnect the parts of the underreamer, a suitable wedge is applied to one or both of the tapered ends 11^a of the key 11, raising it up to free the head 11^b, whereupon the key may be driven out laterally from the slots 12 and 13.

The operation and method of use of the improved underreamer will be readily understood by those skilled in the art from the above description of construction and method of use and operation. [737]

Having thus described my invention, I claim and desire to secure by Letters Patent:

I. An underreamer, comprising a hollow body, a rod movable within the hollow body, cutters connected with the rod to move with the same, means for causing the expansion of the cutters in the movement of the rod, a spring acting upon the rod to move it in one direction, and means confining the spring at one end and consisting of a wedge engaged with the hollow body and accommodated in a slot in the rod.

II. An underreamer, comprising a hollow body, a rod movable within the hollow body, cutters connected with the rod to move with the same, means

for causing the expansion of the cutters in the movement of the rod, a spring acting upon the rod to move it in one direction, and means confining the spring at one end and consisting of a wedge engaged with the hollow body and accommodated in a slot in the rod; said key having an extension seated in the bore of the hollow body.

III. An underreamer, comprising a hollow body, a rod movable within the hollow body, cutters connected with the rod to move with the same, means for causing the expansion of the cutters in the movement of the rod, a spring acting upon the rod to move it in one direction, and means confining the spring at one end and consisting of a wedge engaged with the hollow body and accommodated in a slot in the rod; said key having an extension seated in the bore of the hollow body and being tapered at one end.

IV. An underreamer, comprising a hollow body, a rod movable within the hollow body, cutters connected with the rod to move with the same, means for causing the expansion of the cutters in the movement of the rod, a spring acting upon the rod to move it in one direction, and means confining the spring at one end and consisting of a wedge engaged with the hollow body and accommodated in a slot in the rod; the hollow body [738] being provided with a transverse opening permitting the insertion and withdrawal of the key.

V. An underreamer, comprising a hollow body, a rod movable lengthwise within the hollow body, cutters connected with the rod to move with the same, means causing the expansion of the cutters in the

movement of the rod, a spring surrounding the rod and acting at one end to cause the movement of the rod, and means upon which the spring is seated at the other end; said last named means comprising a key passed through a slot in the rod enlarged lengthwise of the rod and through a transverse slot in the hollow body; said key being provided with a head adapted to be seated within the bore of the hollow body and with a tapered end portion; the slot in the hollow body being enlarged to permit insertion and withdrawal of the key with its head, and one end of the key being tapered.

VI. An underreamer, comprising a hollow body, a rod movable within the hollow body, cutters connected with the rod to move with the same, means for causing the expansion of the cutters in the movement of the rod, a spring acting upon the rod to move it in one direction, and means confining the spring at one end and consisting of a wedge engaged with the hollow body and accommodated in a slot in the rod; said key having an extension seated in the bore of the hollow body and held therein under the tension of the spring. [739]

Insert A'

IN TESTIMONY WHEREOF, I have signed my name to this specification in the presence of two subscribed witnesses.

ELIHU C. WILSON.

Witnesses:

RAYMOND I. BLAKESLEE.

ALFRED H. DAEHLER.

OATH.

State of California,
County of Los Angeles,—ss.

Elihu C. Wilson, the above-named petitioner, being sworn, deposes and says that he is a citizen of the United States and a resident of Los Angeles, Los Angeles County, State of California; that he verily believes himself to be the original, first and sole inventor of the improvements in UNDERREAMERS, described and claimed in the annexed specification; that he does not know and does not believe that the same were ever known or ever used before his invention or discovery thereof; or pretended or described in any printed publication in any country before his invention or discovery thereof; or more than two years prior to this application; or patented in any country foreign to the United States on an application filed more than twelve months before this application; or in public use or on sale in the United States for more than two years prior to this application; and that no application for patent on said improvements has been filed by him or his representatives or assigns in any country foreign to the United States.

ELIHU C. WILSON.

Subscribed and sworn to before me this 26th day of February, 1913.

[Seal]

H. H. HARRIS,
Notary Public in and for the County of Los Angeles,
State of California. [740]

MMD 2-260 LDH

Div. 38 R— 378.

Paper No. —.

Address only

All communications *resp—ing*

"The Commissioner of Patents,
Washington, D. C.," and not any
official by name.

this application should give the
serial number, date of filing, title
of invention, and name of the ap-
plicant.

Department of the Interior.

UNITED STATES PATENT OFFICE.

Washington, May 5, 1913.

Raymond I Blakeslee,

California Bldg.,

Los Angeles, Calif.

Please find below a communication for the EX-
AMINER in charge of the application of Elihu C.
Wilson, Ser. No. 755,170, filed Mar. 18, 1913; Under-
reamers.

E. B. MOORE,

c6-2631

Commissioner of Patents.

In line 9 of page 2, lines 4 and 8 of page 3, line
2 of page 4 the word—bits—is misspelled. In line
22 of page 4 the word "wedge" should be—key. In
line 7 of page 5 it is suggested that the words—
formed with—be inserted after "portions." In line
12 insert the word—extensions—after "which."

The examiner does not understand the phrase be-
ginning "and also" in the last line of page 5. Such
description should accordingly be amended.

In line 6 of Claims 1, 2, 3, 4 and 6 the word
"wedge" should be—key. In line 4 of Claim 1 the
word "in" should be—upon.

Claims 1 and 4 are rejected upon

Double, 862,317, Aug. 6, 1907,

Class 255/75, in view of

Mack, 982,514, Jan. 24, 1911,

Same class, who shows it old to have the spring bear directly against the key. It is therefore considered that there would be no invention in removing the shoulder 5 in Double and allowing the spring to bear directly against the extension 20 of his key.

Claim 2 is rejected upon the same references, the last phrase of this claim being objectionable as indefinite. [741]

Ser. No. 755,170.....2.

Claim 3 is rejected upon Double in view of Mack, cited, and

Heggem, 926,562, June 29, 1909,

Same class, wherein it is shown old to taper the end of the key.

Claim 5 is rejected upon the same references as Claim 3, it being considered that there is no invention in enlarging the slot in the rod lengthwise thereof.

Claim 6 may be allowable if properly corrected.

G. R. IDE,

Exr.

M. M. D. [742]

Paper No. 3

MAIL ROOM

Letter

DEC. 13, 1913.

U. S. PATENT OFFICE.

U. S. Patent Office,
DEC. 15, 1913.

DIVISION 38.

IN THE UNITED STATES PATENT OFFICE.

In re application of:

E. C. Wilson,

Under Reamers,

Filed Mar. 18, 1913,

Ser. No. 755,170.

Before Examiner:

Div. 38,

Room 378.

The official communication of May 5, 1913, is received.

Applicant has long suspected that an application interfering with the present application had been filed, by the patentee, Robert E. Bole of Letters Patent No. 1,080,135, for Under-reamers, issued December 2, 1913. From the disclosure of the Official Gazette there is an absolute identity of invention between the subject of this patent and the above entitled application, with respect to the essential subject matter thereof, namely, the key held in the body by the spring acting to cause the expansion of the bits or cutters.

Claim 5, for instance, of said Bole patent, apparently reads verbatim upon the structure of this application. Claim 3 of this application would seem to be practically the equivalent of claim 5 of said

Bole patent, in subject matter, reading into said claim 5 the necessary means for causing the expansion of the cutters.

Such a certain condition of interference apparently exists, as above, that it is believed the Examiner will forthwith institute such interference proceedings. It is to be regretted that they were not previously declared so that the issuance of the Bole patent might depend upon the eventuation thereof.

Further amendment will be made in due course.

Very respectfully,

RAYMOND IVES BLAKESLEE,

Attorney for Wilson.

To the Hon. Commissioner of Patents:

Dated December 8, 1913. [743]

MAIL ROOM.

Paper No. 4

DEC 15 1913

A

U. S. PATENT OFFICE.

IN THE UNITED STATES PATENT OFFICE.

In re application of :

U. S. Patent Office,

E. C. Wilson,

DEC 16 1913

Underreamers,

DIVISION 38

Filed March 18, 1913,

Serial No. 755,170.

Before Examiner: Div. 38, Room 378.

I hereby amend as follows:

Insert the following claims:

7.—An underreamer comprising a body having a central bore, a rod mounted in said bore, said body and rod provided with registering slots, a
A' key or gib loosely mounted in said slots and having means at the bottom for anchoring in said

body, a spring surrounding said rod and connected thereto at the top thereof, and operatively connected to said key at its lower end, said rod provided with bit engaging means.

8.—An underreamer comprising a body having a central bore, a rod or mandrel mounted in said bore, said body and rod provided with registering slots, a key or gib mounted in said slots and having a projection or wing fitting within the bore of said mandrel below said slots and shouldering against the wall upon transverse movement in either direction, a spring mounted on said gib and operatively connected with said rod, said rod provided at its lower end with bit engaging and supporting means, said rod being enlarged at its lower end and provided with surfaces adapted to support the inner ends of the bits or cutters, and bits or cutters mounted on said rod.

9.—An underreamer comprising a body having a central bore, a rod mounted to reciprocate in said bore, said body and rod provided with slots, a key mounted in said slots, said key having a projection or wing projecting downward [744] from the slot of the body into the central bore and preventing lateral motion of the key, a spring mounted on said key and coiled about said rod, means at the upper end of said rod adjustably connecting said rod and spring, means at the lower end of said rod for engaging and supporting the bits or cutters, and cutters or bits.

10.—An underreamer comprising a body having a central bore, a rod or mandrel mounted in said bore,

said body provided with a slot, said rod provided with a longitudinal slot, a key or gib mounted in said slot and provided with a downwardly projecting portion adapted to contact with the wall of the central bore below said

Per C lateral slot and prevent lateral displacement of the key from either side of the slot, a spring mounted on said gib and operatively connected with said rod, said rod provided at its lower end with a bit engaging head or key.

Insert B'

This amendment is presented to supplement the paper dated December 8, 1913, for the purpose of assisting in the institution of Interference proceedings, as requested. The further claims of the interfering patent are not before applicant's attorney as yet, and if the Examiner thinks such other claims should be suggested for incorporation in applicant's case, prior to declaration of interference, it is requested that such suggestion be made at an early date.

Very respectfully,
RAYMOND IVES BLAKESLEE,
Attorney for Wilson.

To Hon. Commissioner of Patents:

Dated Dec. 9, 1913. [745]

Paper No. —

MKP 2-260—LDH

Div. 38 R—378

Paper No. —.

Address only

All communications *resp—ing*

"The Commissioner of Patents,
Washington, D. C.," and not any
official by name.

this application should give the
serial number, date of filing, title
of invention, and name of appli-
cant.

Department of the Interior.

UNITED STATES PATENT OFFICE.

Washington. Dec. 17, 1913.

MAILED. " " "

Raymond I. Blakeslee,

California Bldg.,

Los Angeles, Calif.

Please find below a communication from the EX-
AMINER in charge of the application of Elihu C.
Wilson, Ser. No. 755,170, filed Mar. 18, 1913: Under-
reamers.

THOMAS EWING,

Commissioner of Patents.

c6-2631.

In Claim 10, line 7, "later" should be—lateral.

The following claims contained in the patent with
which applicant requests interference should be in-
cluded in the issues of such interference and are
herewith suggested to applicant:

An underreamer comprising a body having a cen-
tral bore, a rod or mandrel mounted in said bore,
said body and rod provided with registering slots, a
key or gib mounted in said slots, the slot in the rod
being of sufficient longitudinal extension to permit
the movement of said rod longitudinally of said
body, a key or gib loosely mounted in said slots and
having a projection or wing projecting downward

into the central bore below the walls of the slot in the body and anchoring said key or gib against movement transversely of said body, a spring mounted on said gib and operatively connected with said rod, said rod provided at its lower end with bit engaging means, bits tiltingly carried thereby, and bearings for the inner faces of said bits formed on said rod and adapted to prevent lateral displacement of said bits.

An underreamer comprising a body having a central bore, a spring actuated rod mounted in said bore, said rod [746] provided with bit carrying means, and a key loosely mounted in said body and held therein by the tension of said spring.

An underreamer comprising a hollow body, a spring-actuated rod mounted therein and provided with bit carrying means, and a key loosely mounted in said body and operatively connecting said rod and body.

An underreamer comprising a hollow body, a reciprocating rod, a spring and a key operatively mounting said rod in said body, said key fitting loosely in said body and held therein by spring tension on the top, and means preventing the key sliding laterally in the body without overcoming the downward pressure of the spring on the key.

Ser. No. 755,170— 2.

Applicant is required to make the above claims on or before January 17, 1914, and to correct Claim 10 as noted above in order that the declaration of the interference be not unnecessarily delayed.

Failure to make the claims above suggested within

the time specified will be taken without further action as a disclaimer of the invention covered thereby as provided in Rule 96.

G. R. IDE,
Exr.

MKP. [747]

MAIL ROOM.

Paper No. 6

DEC 26, 1913.

U. S. PATENT OFFICE

B

IN THE UNITED STATES PATENT OFFICE.

In re application of:	U. S. Patent Office,
E. C. Wilson,	DEC 27 1913
Underreamers,	DIVISION 38.
Filed March 18, 1913,	Before Examiner:
Ser. No. 755,170.	Div. 38.
	Room 378.

I hereby amend as follows:

Insert the following claims:

11.—An underreamer comprising a body having a central bore, a spring actuated rod mounted in said bore, said rod provided with bit carrying means, and a key loosely mounted in said body and held therein by the tension of said spring.

12.—An underreamer comprising a hollow body,
B' a spring actuated rod mounted therein and provided with bit carrying means, and a key loosely mounted in said body and operatively connecting said rod and body.

13.—An underreamer comprising a hollow body, a reciprocating rod, a spring and a key operatively mounting said rod in said body, said key fitting loosely in said body and held therein by spring ten-

sion on the top, and means preventing the key sliding laterally in the body without overcoming the downward pressure of the spring on the key.—

Insert C'

This amendment is presented to supplement the papers dated December 8th and December 9th, and in order that interference may be comprehensively declared between this application and the Bole patent 1,080,135.

Early declaration of interference is awaited.

Very respectfully,
RAYMOND IVES BLAKESLEE,
Attorney for Wilson.

To Hon. Commissioner of Patents:

Dated December 20, 1913. [748]

MAIL ROOM.

Paper No. 7

DEC 27 1913

C

U. S. PATENT OFFICE.

IN THE UNITED STATES PATENT OFFICE.

In re application of

U. S. Patent Office,

Elihu C. Wilson,

DEC 29 1913

Underreamers,

DIVISION 38.

Filed March 18, 1913,

BEFORE EXAMINER.

Serial Number 755,170.

DIVISION 38.

Room 378.

I hereby amend as follows:

Substitute for "later," line 7, claim 10:

(—lateral—)

Insert the following claim:

14. An underreamer comprising a body having a central bore, a rod or mandrel mounted in said bore, said body and rod provided with registering slots, a

key or gib mounted in said slots, the slot in the rod being of sufficient longitudinal extension to permit the movement of said rod longitudinally of C' said body, a key or gib loosely mounted in said slots and having a projection or wing projecting downward into the central bore below the walls of the slot in the body and anchoring said key or gib against movement transversely of said body, a spring mounted on said gib and operatively connected with said rod, said rod provided at its lower end with bit engaging means, bits tiltingly carried thereby, and bearings for the inner faces of said bits formed on said rod and adapted to prevent lateral displacement of said bits.

The Official communication of December 17, 1913, has been received.

Three of the claims suggested therein have already been made, in amendment dated December 20, 1913. Th other claim [749] is made as suggested, but is made with a reservation of the right to cancel if the applicant be so advised, because of a particular feature thereof, relating to the tilting of the bits, which is a matter of specific doubt, because of the term "tilting." The interests involving this invention, under other patents for different strucures, have been engaged in a long drawn-out litigation in which there was violent discussion as to the meaning of the word "tilting." The pendency of this litigation makes it still more unfortunate that there was delay in declaring this interference, and applicant therefore makes the reservation above noted for proper protection of his rights, but does not wish

that reservation to bar him against the inclusion of the claim herein presented in the coming interference, if the Patent Office so construes that claim as to believe it proper that it should be included in the interference, and that applicant would be entitled to it if he prevails.

As there has been threatened suit for infringement against applicant's interests, under this Bole patent, the earliest possible declaration of interference will be of vital advantage. To that end it is believed that the Office, under the circumstances, should cooperate expeditiously with applicant, who is instanter presenting this amendment, in order that as little complication as possible may result from the delay in declaring this interference.

Very respectfully,

RAYMOND IVES BLAKESLEE,

Attorney for Wilson.

To Hon. Commissioner of Patents,

Washington, D. C.

Dated at Los Angeles, California, December 22,
1913. [750]

MKP 2-260—LDH

Div. 38 R— 378.

Paper No. —.

Address only

All communications *resp—ing*

“The Commissioner of Patents,
Washington, D. C.,” and not any
official by name.

this application should give the
serial number, date of filing, title
of invention, and name of the ap-
plicant.

Department of the Interior.

UNITED STATES PATENT OFFICE.

Washington. Jan. 2, 1914.

MAILED

“ “ “

Raymond I. Blakeslee,
California Bldg.,
Los Angeles, Calif.

Please find below a communication from the EX-
AMINER in charge of the application of Elihu C.
Wilson, Ser. No. 755,170, filed Mar. 18, 1913: Under-
reamers.

THOMAS EWING,

c6-2631.

Commissioner of Patents.

In response to the communications filed Dec. 26
and 27, 1913:

It is noted that Claim 14, in lines 12, 13 and 14,
recites “bearings for the inner faces of said bits”
etc., while these bearings are shown in the drawings
as flattened faces at the sides of the rod 9 just above
the projections 9^a, they are not described in the
specification. An amendment to the specification
describing this feature and accompanied by the sup-
plemental oath required by Rule 48 must be filed or

Claim 14 must be canceled before the proposed interference can be declared.

MKP.

G. R. IDE,
Exr. [751]

Paper No. 9.

Amdt. D. & Supp'l. Oath.

MAIL ROOM.

JAN 12, 1914.

U. S. PATENT OFFICE.

IN THE UNITED STATES PATENT OFFICE.

In re application of	BEFORE EXAMINER.
Elihu C. Wilson,	DIVISION 38.
Underreamers,	U. S. Patent Office,
	ROOM 378.

Filed March 18, 1913,	JAN 13 1914
Serial Number 755,170.	DIVISION 38.

SUPPLEMENTAL OATH.

State of California,
County of Los Angeles,—ss.

Elihu C. Wilson, being duly sworn, deposes and says that he is the applicant named in the above-entitled application for patent; that the subject-matter of the proposed amendment hereunto attached and pertaining to the bearing surfaces 9^b, and pertaining to the subject-matter of claim 14 of record in this application, was part of his invention and was invented before he filed his said application; that he does not know and does not believe that the same was known or used before his invention thereof; or patented or described in any printed publication in any country before his invention or discovery thereof or more than two years prior to said application; or

patented to himself or to others with his knowledge or consent in the United States or any foreign country on an application filed more than twelve months prior to his said application, or in public use or on sale in the United States for more than two years before the date of said application; that no application for patent on said improvements has been filed by him or his representatives or assigns in any [752] foreign country; and that the same has not been abandoned.

ELIHU C. WILSON.

Subscribed and sworn to before me this 7th day of January, 1914.

[Seal]

V. J. COBB,

Notary Public in and for the County of Los Angeles,
State of California. [753]

MAIL ROOM.

Jan. 12, 1914.

U. S. PATENT OFFICE.

IN THE UNITED STATES PATENT OFFICE.

In Re Application of ELIHU C. WILSON, Under-
reamers. Filed March 18, 1913. Serial Num-
ber 755,170.

BEFORE EXAMINER.

DIVISION 38.

ROOM 378.

I hereby amend as follows:

Insert after the sentence ending in line 4, page 5:
D' Above the T-head 9^a the rod 9 has bearing sur-
faces 9^b for the inner faces of the cutters or bits,
preventing lateral displacement of the bits.

The official communication of January 2, 1914, is received.

It is requested that the examiner place upon the drawing the reference character "9^b" as indicated upon the blue-print filed herewith. The required addition to the specification concerning these bearing surfaces 9^b has been made, and the supplemental oath required is filed herewith.

Early declaration of interference is awaited.

Very respectfully,

RAYMOND IVES BLAKESLEE,

Attorney for Wilson.

To Hon. Commissioner of Patents.

Washington, D. C.

Dated at Los Angeles, California, January 7, 1914.

[754]

Mail Room, Jan. 12, 1914. U. S. Patent Office,
Jan. 13, 1914. Division 38. June 5, 1914.

JUN 5 1914

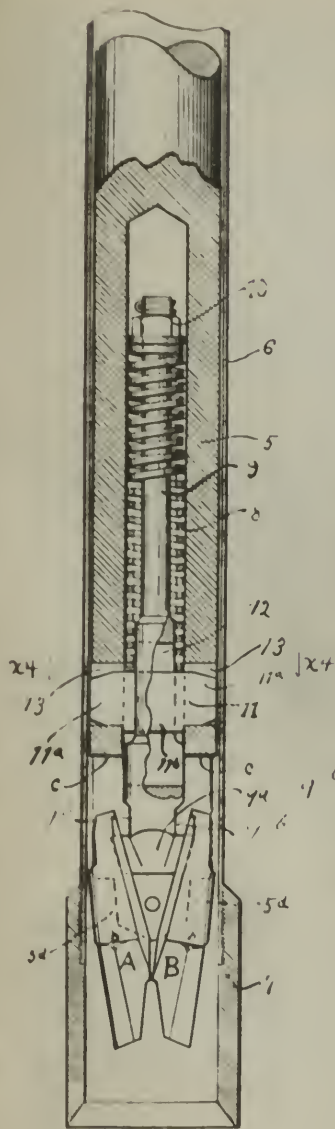


Fig. 1.

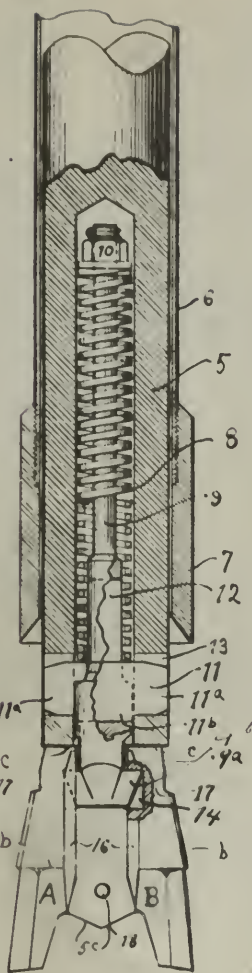


Fig. 2.

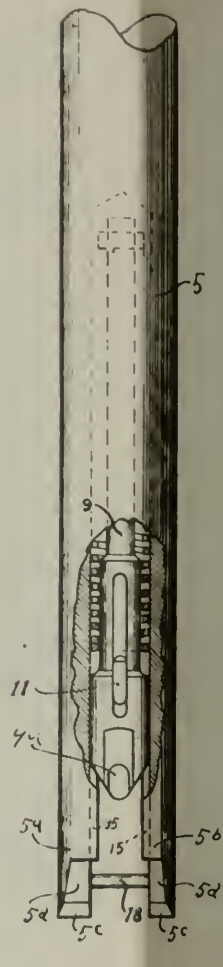


Fig. 3.

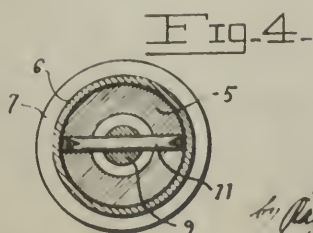


Fig. 4.

WITNESSES
 Alfred H. Daehler
 D. W. Cummings

INVENTOR,
 Edwin C. Wilson
 by Raymond W. Bakerlee
 HIS ATTORNEY

2-213.

Forwarded from Div. 38 to Paper No. 10
Examiner of Interferences. (Interference.)

Jan. 21, 1914.

Department of the Interior,
UNITED STATES PATENT OFFICE.

Washington, D. C.
U. S. PATENT OFFICE,
INTERFERENCE DIVISION.

Feb. 3, 1914.

MAILED.

Raymond I. Blakeslee,
California Bldg.,
Los Angeles, Calif.

Please find below a copy of a communication from
the
the Examiner concerning ~~your~~ application of Elihu
C. Wilson, Ser. No. 755,170, filed Mar. 18, 1913,
Underreamers.

Very respectfully,
THOMAS EWING,
Commissioner of Patents.

Room No. 378.
Address only
The Commissioner of
Patents, Washington,
D. C.
6-1636

37126.

The
~~Your~~ case, above referred to, is adjudged to inter-

fere with others, hereafter specified, and the question of priority will be determined in conformity with the Rules.

The statement demanded by Rule 110 must be sealed up and filed on or before Mar. 16, 1914, with the subject of the invention, and name of party filing it, indorsed on the envelope. The subject matter involved in the interference is:

Count 1. An underreamer comprising a body having a central bore, a rod or mandrel mounted in said bore, said body provided with a slot, said rod provided with a longitudinal slot, a key or gib mounted in said slot, and provided with a downwardly projecting portion adapted to contact with the wall of the central bore below said slot and prevent lateral displacement of the key from either side of the slot, a spring mounted on said gib and operatively connected with said rod, said rod provided at its lower end with a bit engaging head or key.

Count 2. An underreamer comprising a body having a central bore, a rod mounted to reciprocate in said bore, said body and rod provided with slots, a key mounted in said slots, said key having a projection or wing projecting downward from the slot of the body into the central bore, and preventing lateral motion of the key, a spring mounted on said key and coiled about said rod, means at the upper end of said rod adjustably connecting said rod and spring, means at the lower end of said rod for engaging and supporting the bits or cutters, and cutters or bits. [756]

Count 3. An underreamer comprising a body

having a central bore, a rod or mandrel mounted in said bore, said body and rod provided with registering slots, a key or gib mounted in said slots, and having a projection or wing fitting within the bore of said mandrel below said slots and shouldering against the wall upon transverse movement in either direction, a spring mounted on said gib and operatively connected with said rod, said rod provided at its lower end with bit engaging and supporting means, said rod being enlarged at its lower end and provided with surfaces adapted.

Ser. No. 755,170 — 2.

Wilson v. Bole.

to support the inner ends of the bits or cutters, and bits or cutters mounted on said rod.

Count 4. An underreamer comprising a body having a central bore, a rod or mandrel mounted in said bore, said body and rod provided with registering slots, a key or gib mounted in said slots, the slot in the rod being of sufficient longitudinal extension to permit the movement of said rod longitudinally of said body, a key or gib loosely mounted in said slots and having a projection or wing projecting downward into the central bore below the walls of the slot in the body, and anchoring said key or gib against movement transversely of said body, a spring mounted on said gib and operatively connected with said rod, said rod provided at its lower end with bit engaging means, bits tiltingly carried thereby, and bearings for the inner faces of said bits formed on said rod and adapted to prevent lateral displacement of said bits.

Count 5. An underreamer comprising a body

having a central bore, a rod mounted in said bore, said body and rod provided with registering slots, a key or gib loosely mounted in said slots and having means at the bottom for anchoring in said body, a spring surrounding said rod and connected thereto at the top thereof, and operatively connected to said key at its lower end, said rod provided with bit engaging means.

Count 6. An underreamer comprising a body having a central bore, a spring actuated rod mounted in said bore, said rod provided with bit carrying means, and a key loosely mounted in said body and held therein by the tension of said spring.

Count 7. An underreamer comprising a hollow body, a spring actuated rod mounted therein and provided with bit carrying means, and a key loosely mounted in said body and operatively connecting said rod and body.

Count 8. An underreamer comprising a hollow body, a reciprocating rod, a spring and a key operatively mounting said rod in said body, said key fitting loosely in said body and held therein by spring tension on the top, and means preventing the key sliding laterally in the body without overcoming the downward pressure of the spring of the key.

The interference involves your application above identified, and

A patent for an Underreamer, filed by Robert E. Bole, of 1114 W. 16th St., Los Angeles, California, Feb. 19, 1913, Ser. No. 749,343, patented Dec. 2, 1913, patent No. 1,080,135: [757]. attorneys—Lyon & Hackley, of Merchants' Trust Bldg., Los Angeles,

Calif., and assignee:—Edward Double, of Los Angeles, Calif.

The relation of the counts of the interference to the claim of the respective parties is as follows:

Ser. No. 755,170 — 3.				<i>Eilson v. Bole.</i>			
Counts.				Wilson. Bole			
1	.	.	.	10	.	.	1
2	.	.	.	9	.	.	2
3	.	.	.	8	.	.	3
4	.	.	.	14	.	.	4
5	.	.	.	7	.	.	5
6	.	.	.	11	.	.	6
7	.	.	.	12	.	.	7
8	.	.	.	13	.	.	8

Claims 1 to 6, inclusive, will be held subect to the decision in the interference and for revision and restriction, under Rule 96.

MKP.

G. R. IDE,

Examiner, Division 38. [758]

2-079.

Interference No. 37126.

Paper No. 11.

Name, Elihu C. Wilson,

Serial No. 755,170.

Title, Underreamers,

Filed, Mar. 18, 1913,

Interference with Robt. E. Bole,

1255/4/C.

DECISIONS OF

Primary Examiner,

Dated,

Ex'r of Interferences,

Dated,

Board,

Dated,

Commisioner,

Dated,

REMARKS:

This should be placed in each application or patent involved in interference in addition to the interference letters by Primary Examiner. 6-1970. [759]

1913.

CONTENTS:

1. Application Papers.
2. Rej. May 5/13.
3. Letter. Dec. 13/13.
4. Amdt. A. Dec. 15/13.
5. Letter X. Dec. 17/13.
6. Amdt. B. Dec. 26/13.
7. Amdt. C. Dec. 27/13.
8. Letter. Jan. 2/14.
9. Amdt. D & Supp'l. Oath. Jan. 12/14.
10. Intf. Letter Feb. 8, 1914.
11. " Memo.

U. S. Patent Office,

Mar. 20, 1913.

Division 38. [760]

Mail Room
Jan. 12 1914
U. S. Patent Office

U. S. Patent Office
Jan 13 1914
Division 38

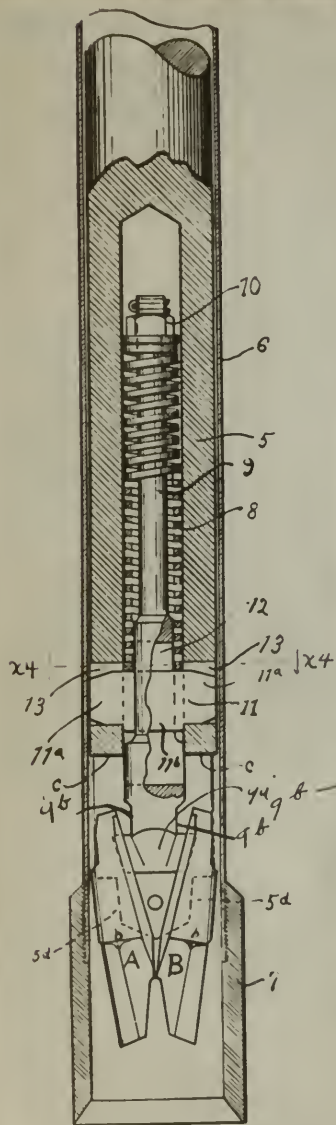


Fig. 1.

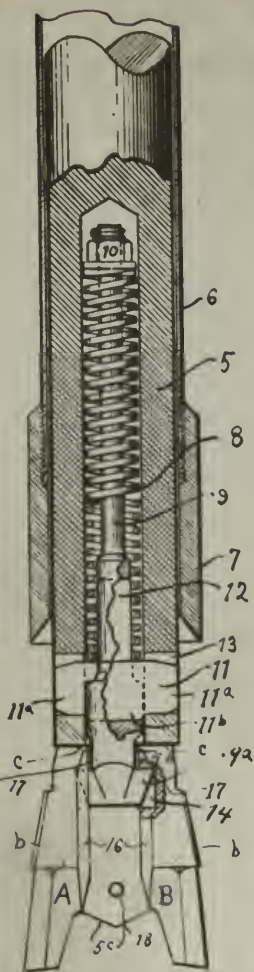


Fig. 2.

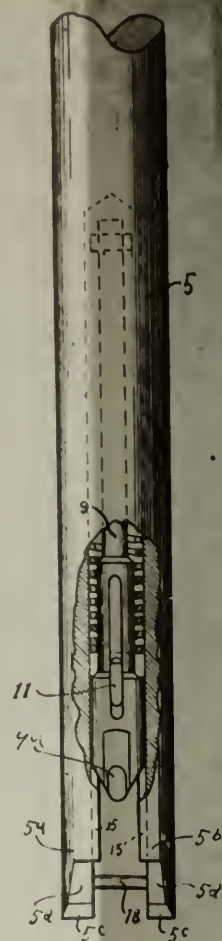


Fig. 3.

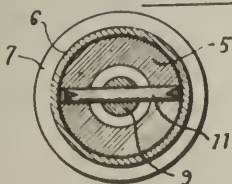


Fig. 4.

(Seal)

WITNESSES
Alfred H. Daehler
D. M. Cummings

INVENTOR,
E. L. Wilson
by Raymond W. Hester
HIS ATTORNEY

**[Defendants' Exhibit 17—Certified Copy File-
Wrapper and Contents, Decision in Interference
Proceeding No. 37,126.]**

2—390.

UNITED STATES OF AMERICA,

Department of the Interior,

United States Patent Office.

To all to whom these presents shall come, Greeting:

THIS IS TO CERTIFY that the annexed is a true copy from the Records of this Office of the Decision of the Examiner of Interferences, dated March 20, 1915, in the matter of

Interference Number 37,126.

Wilson vs. Bole, Subject Matter: Underreamer.

B-19-Eq. U. S. Dist. Court, So. Dist. Cal., So. Div. Bole et al vs. Wilson & Willard Mfg. Co. et al. Deft's Exh. 17. Filed Apr. 12, 1915. Wm. M. Van Dyke, Clerk. By Leslie S. Colyer, Deputy.

IN TESTIMONY WHEREOF I have hereunto set my hand and caused the seal of the Patent Office to be affixed at the City of Washington, this 30th day of March, in the year of our Lord one thousand nine hundred and fifteen and of the Independence of the United States of America the one hundred and thirty-ninth.

[Patent Office Seal]

J. T. NEWTON,

Acting Commissioner of Patents.

Canceled 10¢ Internal Revenue Stamp. Mar. 30, 1915. U. S. Patent Office. [762]

Final Hearing.

January 18, 1915.

JHD.

In the United States Patent Office.

Wilson v. Bole.

Patent Interference No. 37,126.

Underreamer.

Application of Elihu C. Wilson, filed March 18, 1913, No. 755,170.

Patent of Robert E. Bole, No. 1,080,135, issued Dec. 2, 1913, application filed Feb. 19, 1913, No. 749,343.

Mr. RAYMOND IVES BLAKESLEE and
Mr. H. S. HILL, for Wilson.

Mr. FREDERICK S. LYON and Mr. C. A.
MASON, for Bole.

This interference involves the patent issued to Bole on December 2, 1913, upon an application filed February 19, 1913; and the application of Wilson filed March 18, 1913.

The subject matter involved relates to underreamers, and is defined in eight counts of which the following are sufficiently illustrative of the invention:

Count 1.

An underreamer comprising a body having a central bore, a rod or mandrel mounted in said bore, said body provided with a slot, said rod provided with a longitudinal slot, a key or gib mounted in said slot, and provided with a downwardly projecting portion adapted to contact with the wall of the central bore below said slot and prevented lateral dis-

placement of the key from either side of the slot, a spring mounted on said gib and operatively connected with said rod, said rod provided at its lower end with a bit engaging head or key.

Count 6.

An underreamer comprising a body having a central bore, a spring actuated rod mounted in said bore, said rod provided with bit carrying means, and a key loosely mounted in said body and held therein by the tension of said spring. [763]

Count 7.

An underreamer comprising a hollow body, a spring actuated rod mounted therein and provided with bit carrying means, and a key loosely mounted in said body and operatively connecting said rod and body.

The invention relates to underreamers, such as are employed in enlarging oil wells and other well holes, and it is stated in both the patent to Bole and in the Wilson application involved that the invention constitutes an improvement over the underreamer disclosed in a prior patent to Wilson, No. 827,575, dated July 31, 1906. The essential features of that device necessary to an understanding of the present invention are an exterior tubular casing forming the lining of the well, and the underreamer proper, which is lowered therethrough toward the bottom of the well. The underreamer itself comprises a casing or body-containing portion of cylindrical bore, within which is spring mounted for longitudinal movement, a rod termed a mandrel or tee, and from the lower extremity of which the cut-

ters are pivoted. When the underreamer is lowered sufficiently to clear the cutters from the well casing, the tee, under the normal tension of the spring, is drawn into position expanding the cutters for the enlarging or underreaming operation. This work entails severe wear upon the cutters, and from time to time their renewal and replacement is necessary, to accomplish which the tee to which they are pivoted must itself be capable of ready removal from the body portion of the underreamer. To attain this, the tee is supported within the cylindrical bore of the underreamer solely by the spring, which surrounds the same and which in turn is supported by a block or spring-seat removably attached by dowel pins within the cylindrical bore of the underreamer body. To gain access to the parts necessary for replacement of the cutters, it is only necessary therefore to withdraw the dowel pins from the spring-seat, when the parts are [764] removable longitudinally from the cylindrical bore of the body-portion. It was found, however, that in an underreamer which had been subjected to considerable use; the dowel pins are difficult to remove, and then only by the slow process of drilling them out. The present invention provides a more readily removable spring-seat than the block and pin device of Wilson's prior patent. The body portion of the underreamer, and the tee, are slotted, and through the slot laterally across the bore of the body-portion, is inserted a one-piece key having, in the language of count 1,

“A downwardly projecting portion adapted to contact with the wall of the central bore be-

low said slot and prevent lateral displacement of the key from either ends of the slot."

This key being held in place only by the tension of the spring upon it, is readily removable through the same slot by which it was inserted, by an upward pressure exerted upon the key against its spring sufficient to free the downwardly projecting portion and then by a lateral drive sufficient to remove the key through the slot.

The allegations in the preliminary statements of the parties are as follows:

	Wilson.	Bole.
Conception—	January 26, 1911.	Sept. 12-20, 1908.
Drawings—	Feb. 1—Apr. 22, 1911.	" " "
Disclosure—	February 3, 1911.	" " "

Reduction to practice—May 29, 1911.

In addition, Bole alleges disclosure of the invention to his opponent, and claims the benefit of his opponent's reduction to practice of the same.

Both parties have taken testimony to substantiate these allegations.

Many of the events relating to the development and manufacture [765] of the improved underreamer embodying the invention are not in dispute. Wilson was, for some years prior to the earliest date alleged for the present invention, a manufacturer of underreamers. His first underreamer preceded the block and pin construction already referred to. This type, like the present one, employed the slot and key form of spring-seat. This key, however, differed from that of the present invention in being formed of two pieces instead of one, and the two types are known

throughout the testimony of both parties as the two-piece and the one-piece key underreamer, respectively. The earlier type is illustrated in "Wilson's Exhibit Photo. B of Wilson's Reamer 2-piece key device." The two pieces were superposed, the uppermost having a wedging action which together with a screw inserted through the underreamer body held both pieces in place. The key was not, therefore, unattached and freely removable as in the present invention.

The earliest type of underreamer was manufactured up to about 1907 by the Bakersfield Iron Works at Bakersfield, California, under Wilson's directions as general manager of that company. In 1907, the Wilson and Willard Manufacturing Company was organized with shops and offices at Los Angeles, California, with Wilson as President, and Willard as Vice-president and Treasurer. The manufacture of the Wilson underreamer was transferred to that company, Wilson, however, not taking up resident work at Los Angeles until June, 1909.

The two-piece key underreamer was found defective, due in part to the difficulty in removing the key, and in part to the liability of breakage of the tee because of the slot through which the key was inserted. Sometime in 1907, therefore, this type was discontinued and the block and pin type, already described, was adopted, the latter type having no slot in the tee and therefore being less subject to breakage in this portion. This is the type that was being manufactured by the Wilson and [766] Willard Manufacturing Company at the respective dates,

September, 1908, and January, 1911, alleged by Bole and Wilson for conception and disclosure of the one-piece key type embodying the present invention.

Bole has been for a number of years prior to September, 1908, closely associated with both Wilson and Willard, working under Wilson at the Bakersfield Iron Works until 1907, and then as an employee of the newly formed Wilson and Willard Manufacturing Company. As the inventor of a pump known as the Bole pump, Bole, however, soon acquired an independent status with the Wilson and Willard Manufacturing Company, the Bole Pump Company being organized with Bole and Willard as partners, and the Wilson and Willard Manufacturing Company acting as their manufacturer. The latter company was, in fact the manufacturer of both the Bole pump and the Wilson underreamer, and the accounts for these manufactur~~eres~~*ers* was carried separately on the books of that company in the name of the Bole Pump Company, and Wilson, respectively. It also appears, that, in addition to this relation of the parties, Bole acted from time to time as salesman for Wilson, for it was while soliciting an order for a Wilson underreamer of the block and pin type that, as Bole testifies, he conceived and disclosed the present invention in September, 1908. This relation of the parties continued until January, 1913, when a controversy arose in regard to the overdue accounts of the Bole Pump Company. A settlement was effected, and Bole transferred the manufacture of his pump to the Union Tool Company, a competitor in the

underreamer field with Wilson and Willard Manufacturing Company, and whose president, Edward Double, is the assignee of one half interest in Bole's present patent.

Bole, as already stated, testifies to conception and disclosure of the invention in September, 1908. Upon this occasion, he testifies he was calling upon one Heber, foreman of the Sunset [767] Monarch Oil Company, who informed him that although the company was then in need of an underreamer, such trouble had been experienced in drilling out the pins of the block and pin type of Wilson underreamer, that they would not consider the purchase of another. Bole states (Q. 8) that to meet this situation, he devised and disclosed to Heber the one-piece key underreamer of his present patent. A sketch was made, he states (Qs. 10-17), of the underreamer with the key, slotted tee, and cutters in place. The proposed improvements were also disclosed, Bole states (Q. 14), to one Adams, a machinist in the shops of the Sunset Monarch Oil Company, who was very emphatic in his objections to the old type of underreamer. Bole does not say, however, whether the latter disclosure was by way of a sketch or by oral description.

Upon this disclosure, Bole testifies (Qs. 34-37), Heber gave him an order for such an underreamer, and a letter was immediately dispatched to the Wilson and Willard Manufacturing Company containing a description and sketches of the same. The instructions for making the new device, he states (Qs. 38-40), also included a heavier tee to overcome the liability to breakage found in the slotted tee of the early

two-piece key type.

Bole's witnesses, Heber and Adams, testify in regard to disclosure of the one-piece key underreamer to them in September, 1908. Both refer to the occasion of the proposed order for a Wilson underreamer by the Sunset Monarch Oil Company on that date, and of the difficulties experienced in the use of previous types of this device. While Bole states that he gave a detailed disclosure to Heber, not only of the one-piece key, but of the parts of the underreamer which cooperate therewith, Heber can recall only the key itself, a sketch of which he makes, and he states, (XQ, 191), that he is positive Bole disclosed no other [768] portion of an underreamer. In fact, upon the production of the sketch (Q. 27), he displays uncertainty as to whether his recollection extends back to the original disclosure or is of more recent origin. He also admits (XQ. 48, 51), that he had never seen, and was totally unfamiliar with, the only type of underreamer with which a key can be used, namely, the slotted tee type.

Adams was more familiar with the various types of the Wilson underreamer. His testimony however is very meager in regard to details of the structure disclosed, and he, like the witness Heber, appears able only to make a sketch of the key. Adams does refer (Q. 26), it is true, to a tool for removing the key but he says nothing of the tee with its slot or of the location of the spring upon the key.

It seems unlikely that without a more detailed disclosure of the parts of the underreamer which were to cooperate with the key, than is shown by the tes-

timony of these witnesses, that they would have remembered this one element of the invention, even though it is the most distinguishing feature, after the lapse of six years.

Moreover, while both Heber and Adams fix the time of this disclosure by the date of September, 1908, order for an underreamer, which was to overcome the difficulties experienced in previous devices of this character, the underreamer actually delivered upon this order embodied no departures from the block and pin type which was then being manufactured by the Wilson and Willard Manufacturing Company. Nor does the testimony of Heber and Adams indicate that the filling of the order by the then standard type of underreamer was contrary to their expectations or that it created any surprise; for both state, (Heber XQ, 76, Adams XQ. 120, 121), that no complaint was made and that they did not even discuss the matter among themselves. If such an event made so little impression upon [769] these witnesses at that time and was regarded as of so little importance, it is difficult to see how it could fix a date of disclosure of the proposed improvements after the lapse of six years.

While the determination of the question involved in this case, that of originality of invention, is not to be based upon the testimony of these witnesses or in fact upon any one portion of the evidence presented, but rather upon the entire testimony in behalf of both parties together with the surrounding circumstances of the case, it may now be said that the testimony of the witnesses Heber and Adams in regard to dis-

closure of the invention to them in September, 1908, does not carry conviction.

The receipt of this September, 1908, order with proposed changes embodying the present invention at the offices of the Wilson and Willard Manufacturing Company is denied by Wilson and by his brother W. W. Wilson. Wilson himself had not as yet taken up the work for the Wilson and Willard Manufacturing Company requiring his presence at its place of business but he appears to have maintained a general supervision of affairs by correspondence. W. W. Wilson testifies that he was at this time in charge of the office records of the company, that he distinctly recalls the September, 1908, order obtained by Bole from the Sunset Monarch Oil Company and that he entered such order upon the books of the Wilson and Willard Manufacturing Company, but that the order called for no change in the block and pin underreamer the company was then manufacturing. The testimony of Willard, who appears to have been in active charge of the shop management at this time, is somewhat at variance with that of W. W. Wilson. W. W. Wilson testifies that the order was given verbally by Bole after his return from his September 1908 trip. Willard insists that the order was by letter received before Bole's return. Upon every other point, however, the testimony of Willard is so contradictory that [700] it is of little value in determining who was the inventor of the device in controversy. Upon the taking of Wilson's *prima facie* evidence, Willard testifies (Q. 154) that accompanying Bole's order "there was some

suggestion made for changing the method of holding the tee-bar and spring"; and upon cross examination (XQ. 371) he even goes so far as to state that a sketch of a key device accompanied the order. Upon Wilson's rebuttal proofs, however, he states positively (RXQ. 183) that no sketch accompanied the order. Upon rebuttal, his testimony also involves further contradictory statements; for he first testifies (RDQ. 124, 127) that Bole's September 1908 order involved no changes over the standard underreamer then being manufactured, and later he states (XQ. 237-8), that while no sketch accompanied the order, there was some suggestion in the letter of a change from the standard type but that he has no recollection of its nature.

The testimony of Willard is equally unsatisfactory in regard to events alleged by Bole to have occurred subsequent to the September 1908 order but prior to Wilson's alleged date of conception. Bole testifies (Q. 66-8) that upon his return to the Wilson and Willard Manufacturing Company, he took the matter of the proposed changes in the Wilson underreamer up with Willard, and that the latter informed him that the suggestions had been referred to Wilson, who was then at Bakersfield, California, but that Wilson was unwilling to make the device as ordered. Willard, on Wilson's *prima facie* proofs, (Q. 399), states that he recalls the conversation with Bole in regard to the order and that Bole expressed great disappointment because the underreamer was not shipped as ordered, and he intimates (Q. 398), although he does not positively so state, that the pro-

posed changes had been submitted to Wilson and that they did not meet with his approval. On rebuttal, however, (Q. 9), Willard testifies that he recalls no such conversation [771] with Bole, and that (Q. 12,11) in no respect whatever did he mention any proposed changes to Wilson. Wilson himself denies that any suggestions accompanying Bole's September 1908 order were submitted to him.

At various times after Wilson took up his work at the Wilson and Willard Manufacturing Company in June 1909, and before Wilson's alleged date of conception, Bole also testifies (Q. 73-82), he urged upon Wilson the adoption of the one-piece key type of underreamers, but that his suggestions were not accepted until sometime in the spring of 1911, when orders for the block and pin type were falling off and some improvement had to be made. Bole states (Q. 90) that Wilson was particularly pleased with the suggestions as to a heavier tee, and that an old style underreamer was remodeled to include this tee; that later Wilson agreed to include the one-piece key, and that a shop order accompanied by a sketch with his (Bole'?) name thereon was made out, and the device made up under his instructions.

On one of these occasions of disclosure to Wilson, Bole states (Q. 81) that the foreman of his pump department, Naphas, was present. Naphas, however, is not called to testify and Wilson (Q. 299) denies such disclosures.

This old type of underreamer referred to by Bole as changed at his solicitation to embody the invention was, however, reconstructed to embody this im-

provement and constitutes the reduction to practice relied on by both parties. The earliest shop order for this work, offered in evidence is "Wilson's Exhibit February 1911, Wilson and Willard Manufacturing Company Shop Record Slips" is dated February 3, 1911. The question is whether the invention embodied in this underreamer, referred to throughout the testimony as underreamer No. 120, originated with Bole or Wilson.

Wilson testifies to conception and disclosure of the invention sometime between January 26, 1911, and the date, February 3, 1911, [772] of the shop order above referred to.

On the earlier date, he states he received an order for the two-piece key type of underreamer with the slotted tee, the manufacture of which had been discontinued some years before due to the weakness in the slotted tee and the difficulty in removing the two-piece key. This order led to a reconsideration of the former type of underreamer to determine if improvements in its design could not be effected. The result attained, Wilson states, was a tee of enlarged and stronger design, and attention was then directed to designing a single-piece key. About February 3, 1911, Wilson testifies, he called a conference of his associates, including Bole, to consider the adoption of the said designs. Although Bole denies that such a conference occurred or that he was present, and although Willard, testifying in behalf of Wilson, has no recollection of the same, the testimony of W. W. Wilson and of the Witness Wilcox, also an employee of the Wilson and Willard Manufac-

turing Company, is believed to be clearly sufficient to establish that the conference did take place at the date alleged, that the invention was discussed, and that Bole was present. The contention on behalf of Bole in regard to this conference is, that admitting the events testified to by these witnesses occurred, it merely established that the invention was discussed at this conference and not that it originated with Wilson; and that, in fact, in the absence of positive evidence to the contrary, the invention then disclosed must be presumed to be Bole's. This contention is believed to be unwarranted since *so* presumption of possession of the invention by either party prior to their filing dates arises because of their relation as junior and senior parties. The burden is simply upon Wilson, as the junior party, to establish a prior and independent conception of the invention by a preponderance of the evidence. [773]

It is true that Wilson has established no disclosure of the invention before this conference. He offers in evidence as his Exhibit "Reproduction Sketch of Sketches of late January and early February, 1911," a reproduction from recollection of different designs of one-piece keys with portions of the underreamer cooperating therewith, which he submitted at this conference. Only one of these embodies the present invention, and the others show a logical development from the former two-piece key design. From Wilson's testimony it cannot be determined whether he claims to have made such sketches before or during the con-

ference. Wilcox testifies (Q. 87) that the first disclosure of the invention he received was by a sketch which Wilson had in his hand and was discussing at this conference. W. W. Wilson testifies (Q. 369) that the downward projections on the one-piece key on the sketch was made by Wilson during the conference. Both also testify that the only suggestion or part Bole took in the conference was a statement as to the means for removing the key.

This occurrence is testified to by W. W. Wilson as follows (Q. 344):

. . . When Mr. Wilson said he could use a key of a single piece, with a downward projection which would hold it in the bore of the underreamer body, and that he could get it into place but that he did not know exactly how to get it out, Mr. Bole said 'Pry it out.' . . . Mr. E. C. Wilson then said 'Yes, it might be pried out, but I don't think so.' Then followed a general discussion of means for prying the key out of place. Mr. E. C. Wilson said 'It will be necessary to pry one end of the key up and hold it there, and then drive it out sideways.' Mr. Bole said that he could make such a tool or that he could make a tool that would do that. . .

The contention on behalf of Bole is that this suggestion from Bole indicates such knowledge of the invention on his part as to denote prior conception of the same, and in fact negatives any independent conception of the invention by Wilson since the [774] very purpose of the one-piece key is its ready removability. It is believed, however, that this evi-

dence does not point to the conclusion urged but that at most it merely indicates that Wilson had not worked out all the details of the invention, and that Bole suggested one of the details. This does not, however, as is also urged by counsel for Bole, constitute Bole a joint inventor. The means for removing the key is not a structural element of the invention defined in the issue and while essential to the one-piece key underreamer, it is at most merely ancillary to the main invention, the sole possession of which is not to be lost by an independent suggestion of the detail (*Larkin v. Richards*, 122 O. G., 2390.)

Another circumstance which is believed to limit Bole's claim to the key removing tool rather than to the key itself, is his "Exhibit January 27, 1911 Sketch." This exhibit comprises a rectangular portion of tracing linen upon which appears an outline sketch of a portion of an underreamer with the one-piece key constituting the distinguishing feature of the present invention, one side of the key being shown elevated to removing position by a lever or key-removing tool. Also sketched in outline. Upon the face of the exhibit appear the notations, "Key remover for new reamer if adopted," "inventor—Robert E. Bole, Jan. 27th, 1911," "Witness—W. H. Fahnestock, E. F. Grigsby." Fahnestock, testifying in behalf of Wilson, and Grigsby testifying in behalf of Bole, both state that while their purported signatures on this exhibit appear to be their own, they do not recall signing the alleged document as witnesses nor do

they recall ever having before seen the same. Because of this testimony and because of certain physical features of the exhibit, considerable controversy has arisen as to its genuineness, the contention being made in behalf of Wilson that Bole is guilty of forgery in respect thereto. [775] The contention in behalf of Bole, on the other hand, is that, because of the failure of Fahnestock and Grigsby to at least deny their signatures to this alleged document, Bole is established in possession of the invention at least as early as the date, January 27, 1911, appearing thereon, which date is prior to that of the alleged conference at which Wilson disclosed the invention. All that need be said in regard to that controversy is that the sketch is not proved to have been witnessed by Fahnestock and Grigsby or disclosed to any one at the date noted thereon or at any date prior to the conference above referred to. For the present purpose, the greatest significance attaching to this exhibit is the manner in which it is introduced in evidence. The notation upon the face of this exhibit refers to Bole as the inventor, not of the one-piece key, but of the key-removing tool and Bole himself stamps the exhibit as of this character in introducing it. He testifies (Q. 84), in producing the exhibit:

“I made a tool or a sketch of such a tool, which I have at the present time.”

Various employees of the Wilson and Willard Manufacturing Company, Knapp (Qs. 35, 45, 169), Berg (Qs. 205, 206), Houriet (Rebuttal, Q. 41), and Wills (Rebuttal, Qs., 80, 81) testify that they worked

on the Wilson underreamer with the one-piece key therein embodying the invention, and all deny Bole's assertion that such device was made under his instructions or by means of a sketch with his name thereon. A motion was made at final hearing in behalf of Bole to strike out the testimony of Houriet and Wills as not proper rebuttal, but their testimony here referred to is so obviously rebuttal in character that further consideration of the motion is deemed unnecessary.

In behalf of Bole, it is pointed out as significant that while numerous shop records of the Wilson and Willard Manufacturing Company have been produced in evidence, the original order obtained [776] by Bole in September, 1908, in which he alleges to have disclosed the invention, and the key sketch which must have accompanied the shop orders for the construction of the first underreamer embodying the invention, are missing. While the absence of these documents may have some weight, it is not sufficient to discredit the positive testimony of the witnesses or to alter the conclusions arising from other circumstances of the case. Wilson, Willard, and W. W. Wilson all testify that diligent search was made for the September, 1908, order, and Wilson gave similar testimony in regard to the key sketch accompanying the shop orders for the making of the device. Moreover, as already stated, the employees who made the device all testify that it was not made by sketch or other instructions from Bole.

Moreover, of all the witnesses in behalf of Wilson, only Willard and Wilcox testify that Bole asserted

any claim to the invention prior to January, 1913, count and Bole's withdrawing his business from the the date of the controversy over the Bole pump ac-Wilson and Willard Manufacturing Company; and these witnesses testify positively that such claim by Bole was not made until sometime after the Wilson Underreamer with the invention embodied therein had been manufactured and placed on the market and its success assured. During this time, and in fact up to January, 1913, when Bole left, the new underreamer, like the former types, was manufactured upon Wilson's personal account. Bole does not testify that he protested against this state of affairs, and so far as the record shows, he did not approach Wilson, nor did he take other steps to assert his claim until the controversy of January, 1913, occurred. It is true, as counsel for Bole asserts, that Wilson himself delayed in filing his application until after his opponent's filing date, but Wilson's delay in filing, unlike Bole's, was during an active [777] assertion of the invention as his own.

When all the circumstances of the case are considered, it is believed that the evidence clearly establishes Wilson and not Bole as the original inventor.

Priority of invention of the subject-matter of this interference is awarded to Elihu C. Wilson, the junior party.

Limit of appeal: April 20, 1915.

H. E. STAUFFER,

Examiner of Interferences.

March 20, 1915. [778]

[**Stipulation and Order of April 23, 1915, in re
Withdrawal of Exhibits and Transmission to
U. S. Patent Office.**]

*In the United States District Court, Southern Dis-
trict of California, Southern Division.*

No. B-19—IN EQUITY.

ROBERT E. BOLE, and EDWARD DOUBLE,
Complainants,
vs.

WILSON AND WILLARD MANUFACTURING
COMPANY, and ELIHU C. WILSON,
Defendants.

And now, to wit, April 22d, 1915, it is hereby stipulated and agreed by and between the parties hereto:

I. That the clerk of the court shall forthwith make certified copies of all such exhibits, introduced in evidence on the trial of this cause, as were received by said clerk from the Commissioner of Patents and identified as exhibits in Interference 37,126 Wilson vs. Bole, pending in the United States Patent Office, and shall forthwith return to the Commissioner of Patents, at Washington, D. C., by registered mail, all exhibits transmitted to him by said Commissioner of Patents and relating to the said interference.

II. That the cost of making such certified copies shall be paid by the party introducing the respective exhibits in evidence.

III. That duplicates of such certified copies of exhibits may be transmitted to the United States

Circuit Court of Appeals for the Ninth Circuit upon the Appeal herein taken by defendants, as a part of the Transcript of Record therein to be certified up by the clerk of this court. [779]

IV. The parties hereto stipulate and agree that the Commissioner of Patents upon a request from the clerk of the said United States Circuit Court of Appeals shall immediately transmit said original exhibits so copied to said clerk for use of said court upon said appeal, to be returned to the Commissioner of Patents upon the determination of said appeal by said court.

FREDERICK S. LYON,

Solicitor for Compalinants.

RAYMOND IVES BLAKESLEE,

Solicitor for Defendants.

The foregoing stipulation is hereby approved and it is ordered accordingly.

Dated April 23, 1915.

OSCAR A. TRIPPET,

District Judge.

[Endorsed]: In Equity. No. B-19. United States States District Court, Southern District of California, Southern Division. Robert E. Bole and Edward Double, Complainants, vs. Wilson and Willard Manufacturing Comapny, and Elihu C. Wilson, Defendants. Stipulation & Order in Regard to Exhibits. Filed Apr. 23, 1915. Wm. M. Van Dyke, Clerk. By Chas. N. Williams, Deputy Clerk. Raymond Ives Blakeslee, 728-30 California Building, Los Angeles, Cal., Solicitor for Defendants. [780]

[**Stipulation and Order of April 26, 1915, in re Transcript of Testimony and Portions to be Stricken, in Preparation of Transcript of Record on Appeal.**]

In the United States District Court, Southern District of California, Southern Division.

No. B-19—IN EQUITY.

ROBERT E. BOLE and EDWARD DOUBLE,
Complainants,

vs.

WILSON AND WILLARD MANUFACTURING
COMPANY and ELIHU C. WILSON.

Defendants.

It is hereby stipulated and agreed by and between the respective parties hereto by their solicitors, and subject to the approval of the Court, that the Clerk in preparing the transcript on appeal herein shall include in such transcript, under the Praecipe filed herein, the complete record of the testimony and proceedings had in connection therewith on the trial of this case, subject to the following eliminations by cancellation, to wit, strike out the matter from line 20, page 1, to the beginning of the sentence in line 28, page 8, with the exception of the words "Mr. Lyon," line 27, inclusive; strike out pages 9 to 18, inclusive; strike out lines 6 to 18, page 19, inclusive.

FREDERICK S. LYON,

Solicitor for Complainants.

RAYMOND IVES BLAKESLEE,

Solicitor for Defendants.

Dated April 26th, 1915. [781]

The foregoing Stipulation is hereby approved and it is ordered accordingly.

Dated April 26, 1915.

OSCAR A. TRIPPET,
District Judge.

[Endorsed]: In Equity. No. B-19. United States District Court, Southern District of California, Southern Division. Robert E. Bole, and Edward Double, Complainants, vs. Wilson and Willard Manufacturing Company, and Elihu C. Wilson, Defendants. Stipulation & Order. Filed Apr. 26, 1915. Wm. M. Van Dyke, Clerk. By R. S. Zimmerman, Deputy Clerk. Raymond Ives Blakeslee, 728-30 California Building, Los Angeles, Cal., Solicitor for Defendants. [782]

In the United States District Court, Southern District of California, Southern Division.

No. B-19—IN EQUITY.

ROBERT E. BOLE, and EDWARD DOUBLE,
Complainants,

vs.

WILSON AND WILLARD MANUFACTURING
COMPANY and ELIHU C. WILSON,
Defendants.

Assignments of Error.

Come now the defendants above named and specify and assign the following as the errors upon which they will rely upon their appeal to United States Circuit Court of Appeals for the Ninth Circuit, from the decree or order of this Court of April 16th, 1915:

I.

That the District Court of the United States for the Ninth Circuit, Southern District of California, Southern Division, erred in entering any decree in favor of complainants;

II.

That said Court erred in finding and decreeing that the letters patent sued on are good and valid in law;

III.

That said Court erred in finding and decreeing that the letters patent sued on, because good and valid in law, are infringed; [783]

IV.

That said Court erred in finding and decreeing that Robert E. Bole was the original, first, true and sole inventor of the invention disclosed and claimed in and by the letters patent sued on;

V.

That said Court erred in not finding and decreeing that Elihu C. Wilson of the defendants was the original, first, true and sole inventor of the invention of the letters patent sued on;

VI.

That said Court erred in finding and decreeing that the letters patent sued on are not anticipated by the manufacture, sale and use of under-reamers manufactured and sold to others to be used by the defendants prior to the date of application of the letters patent sued on;

VII.

That said Court erred in finding and decreeing

that the complainant, Robert E. Bole, did not surreptitiously or unjustly obtain the letters patent sued on for that which was in fact invented by another, viz: Elihu C. Wilson of the defendants, who was using reasonable diligence in adapting and perfecting the same;

VIII.

That said Court erred in not holding and finding that the complainant, Robert E. Bole, was estopped from asserting any right in and about the invention of the patent sued on and from prosecuting any claim of infringement of said letters patent as against the defendants;

IX.

That said Court erred in finding that the defendant, [784] Elihu C. Wilson, obtained the invention of the patent sued on from the complainant, Robert E. Bole;

X.

That said Court erred in receiving in evidence the deposition of Roy L. Heber as a witness on behalf of complainants;

XI.

That said Court erred in not following and adopting the decision of the United States Patent Office that the defendant, Elihu C. Wilson, and not the complainant, Robert E. Bole, is the original, true, first and sole inventor of the invention of the letters patent sued on;

XII.

That said Court erred in not admitting certain testimony offered or attempted to be taken on behalf of defendants tending to further establish the de-

defendant, Elihu C. Wilson, and not the complainant, Robert E. Bole, as the original, true, first and sole inventor of the invention of the letters patent sued on;

XIII.

That said Court erred in refusing to admit certain evidence offered by defendants to further prove that the defendant, Elihu C. Wilson, and not the complainant, Robert E. Bole, was the original, true, first and sole inventor of the invention of the patent sued on;

XIV.

That said Court erred in holding that the complainant, Robert E. Bole, was in any manner diligent in and about the invention of said letters patent sued on, if in fact in any manner possessed of the same prior to disclosure of the same to him by the defendant, Elihu C. Wilson;

XV.

That said Court erred in holding that the defendant, Elihu [785] C. Wilson, was lacking in diligence or negligent as to reducing the invention to practice or applying for patent for same;

XVI.

That said Court erred in not holding and finding that the complainant, Robert E. Bole, obtained the invention of the patent sued on from the defendant, Elihu C. Wilson.

In order that the foregoing Assignments of Error may be made of record, the defendants present the same to the Court and petition that disposition may be made thereof in accordance with the laws of the

United States thereunto provided.

WHEREFORE, the said defendants pray that the said decree and order of this Court made and entered on April 16th, 1915, enjoining and restraining defendants, be reversed, in part and in whole, and that the United States District Court for the Southern District of California, Southern Division, be directed to enter an order setting aside in entirety the order and decree of April 16th, 1915.

Respectfully submitted,

RAYMOND IVES BLAKESLEE,
Solicitor and of Counsel for Defendants.

[Endorsed]: No. B-19. United States District Court, Southern District of California, Southern Division. Robert E. Bole and Edward Double, Complainants, vs. Wilson and Willard Manufacturing Company and Elihu C. Wilson, Defendants. In Equity. Assignments of Error on Appeal. Filed Apr. 21, 1915. Wm. M. Van Dyke, Clerk. By Leslie S. Colyer, Deputy. Received a copy of the within Assignment of Error on Appeal, this 20th day of April, 1915. Frederick S. Lyon, Solicitor for Complainant. Raymond Ives Blakeslee, 728-30 California Building, Los Angeles, Cal. Solicitor for Defendants. [786]

In the United States District Court, Southern District of California, Southern Division.

No. B-19—IN EQUITY.

ROBERT E. BOLE and EDWARD DOUBLE,
Complainants,

vs.

WILSON AND WILLARD MANUFACTURING
COMPANY and ELIHU C. WILSON,
Defendants.

Petition for Order Allowing Appeal.

Wilson and Willard Manufacturing Company and Elihu C. Wilson, defendants in the above-entitled cause, conceiving themselves aggrieved by the Interlocutory Order and Decree filed and entered on the 16th day of April, 1915, in pursuance of the decretal order of April 13th, 1915, in the above-entitled cause, whereby it was ordered, adjudged and decreed that the complainants' letters patent are good and valid in law; tht defendants have infringed same; and that a perpetual injunction issue directed to the said defendants, its and his officers, attorneys, agents, servants, workmen, clerks and associates, enjoining and restraining them, and each of them, from directly or indirectly making or causing to be made, using or causing to be used, selling or causing to be sold, or otherwise disposing of in any manner any underreamer or device containing or embodying or employing the invention granted and patented in and by said letters patent of complainants, No. 1,080,135, or any device [787] or machine capable

of being combined or adapted to be used in infringement of said letters patent or of the claims thereof in any manner whatsoever, and from making or causing to be made, using or causing to be used, selling, or causing to be sold, or otherwise disposed of in any manner any machine like the so-called Wilson Improved Underreamer in evidence in this cause, together with costs and disbursements of this suit to the complainants, and awarding other relief,—now comes Raymond Ives Blakeslee, Esq., solicitor for defendants, and petitions said Court for an order allowing defendants, Wilson and Willard Manufacturing Company and Elihu C. Wilson, to prosecute an appeal from said Interlocutory Order and Decree and the decision of the Court thereupon, and from the whole thereof, to the Honorable, the United States Circuit Court of Appeals for the Ninth Circuit, for the reasons specified in the Assignment of Errors which is filed herewith, under and according to the laws of the United States in that behalf made and provided; and also that an order be made fixing the amount of security which defendants shall give and furnish upon such appeal; and that a citation issue as provided by law, and that a certified transcript of the records, proceedings and papers upon which said Decree was based be forthwith transmitted to the United States Circuit Court of Appeals for the Ninth Circuit, in accordance with the rules in equity promulgated by the Supreme Court of the United States and the statutes made and provided.

And your petitioners further pray that an order

be made fixing the sum of security which defendants shall give and [788] furnish upon such appeal.

And you petitioners will ever pray.

RAYMOND IVES BLAKESLEE,
Solicitor for Defendants.

[Endorsed]: No. B-19. United States District Court, Southern District of California, Southern Division. Robert E. Bole and Edward Double, Complainants, vs. Wilson and Willard Manufacturing Company and Elihu C. Wilson, Defendants. In Equity. Petition for Order Allowing Appeal. Filed Apr. 21, 1915. Wm. M. Van Dyke, Clerk. By Leslie S. Colyer, Deputy. Raymond Ives Blakesslee, 728-30 California Building, Los Angeles, Cal., Solicitor for Defendants. [789]

In the United States District Court, Southern District of California, Southern Division.

At a stated term to wit, the January term, A. D. 1915, of the District Court of the United States of America, of the Ninth Judicial Circuit, in and for the Southern District of California, Southern Division, held at the courtroom in the City of Los Angeles, on the 21st day of April, in the year of our Lord one thousand nine hundred fifteen. Present: The Hon. OSCAR A. TRIPPET, United States District Judge.

No. B-19—IN EQUITY.

ROBERT E. BOLE and EDWARD DOUBLE,
Complainants,

vs.

WILSON AND WILLARD MANUFACTURING
COMPANY and ELIHU C. WILSON,
Defendants.

Order Allowing Appeal.

In the above-entitled cause the defendants having filed their petition for an order allowing an appeal from the order of this Court made and entered April 16, 1915, together with Assignments of Error:

Now upon motion of Raymond Ives Blakeslee, Esq., solicitor for defendants, it is ordered that said appeal be, and hereby is allowed to defendants, to the United States Circuit Court of Appeals for the Ninth Circuit, from the said order or decree made and entered by this Court in this cause, on April 16th, 1915, that defendants and each of them be enjoined and restrained from infringements of those certain letters patent No. 1,080,135, [790] of complainants specified in said order, and further awarding costs and other relief to complainants, and that the amount of defendants' bond on said appeal be, and the same is hereby, fixed at the sum of Two Hundred Fifty Dollars (\$250.00).

IT IS FURTHER ORDERED, that upon the filing of such security a certified transcript of the records and proceedings herein be forthwith transmitted to said United States Circuit Court of Appeals for the Ninth Circuit, in accordance with the

rules in equity by the Supreme Court of the United States promulgated, and in accordance with the statutes made and provided, together with the exhibits on file in this case or duly certified copies thereof.

Dated April 21st, 1915.

OSCAR A. TRIPPETT,
Judge.

[Endorsed]: No. B-19. United States District Court, Southern District of California, Southern Division. Robert E. Bole and Edward Double, Complainants, vs. Wilson and Willard Manufacturing Company, and Elihu C. Wilson, Defendants. In Equity. Order Allowing Appeal. Filed Apr. 21, 1915. Wm. M. Van Dyke, Clerk. By Leslie S. Colyer, Deputy. Raymond Ives Blakeslee, 728-30 California Building, Los Angeles, Cal., Solicitor for Defendants. [791]

In the United States District Court, Southern District of California, Southern Division.

No. B-19—IN EQUITY.

ROBERT E. BOLE and EDWARD DOUBLE,
Complainants,

vs.

WILSON AND WILLARD MANUFACTURING
COMPANY and ELIHU C. WILSON,
Defendants.

Bond on Appeal.

KNOW ALL MEN BY THESE PRESENTS:
That Maryland Casualty Company, a corporation

organized and existing under the laws of the State of Maryland, and duly licensed to transact business in the State of California, is held and firmly bound unto Edward Double and Robert E. Bole, complainants in the above-entitled suit, in the penal sum of Two Hundred Fifty Dollars (\$250.00), to be paid to the said Edward Double and Robert E. Bole, their heirs and assigns, which payment well and truly to be made the Maryland Casualty Company binds itself, its successors and assigns, firmly by these presents.

Sealed with the corporate seal and dated this 21st day of April, 1915.

The condition of the above obligation is such that whereas the said defendants, Wilson and Willard Manufacturing Company, and Elihu C. Wilson, of the above-entitled suit, are about to take an appeal to the United States Circuit Court of Appeals for the Ninth Circuit, to reverse an order or decree made, [792] rendered and entered on the 16th day of April, 1915, by the District Court of the United States, for the Southern District of California, Southern Division, in the above-entitled cause by which the said defendants, Wilson and Willard Manufacturing Company, and Elihu C. Wilson, were enjoined and restrained from infringement of United States Letters Patent, No. 1,080,135, and were awarded other relief, with costs to said complainants:

NOW, THEREFORE, the condition of the above obligation is such that if said Wilson and Willard Manufacturing Company, and Elihu C. Wilson, shall

prosecute their said appeal to effect and answer all damages and costs, if they shall fail to make good their appeal, then this obligation shall be void; otherwise to remain in full force and effect.

IN WITNESS WHEREOF, the seal and signature of said principal is hereunto affixed and the corporate name of said surety is hereto affixed and attested by its duly authorized attorneys in fact at Los Angeles, California, this 21st day of April, 1915.

ELIHU C. WILSON. (Seal)

THE MARYLAND CASUALTY COMPANY,

By JAMES L. VAN NORMAN,

Attorney-in-Fact.

WILSON & WILLARD MFG. CO.

[Seal]

Per E. C. WILSON,

Pres.

VIVIAN J. NORTH. (Seal.)

Attorney-in-Fact.

State of California,

County of Los Angeles,—ss.

On this 21 day of April, 1915, before me, L. B. Belcher, a Notary Public in and for the said County of Los Angeles, State of California, residing therein, duly commissioned and sworn, personally appeared James L. Van Norman known to me to be the attorney in fact, and Vivian J. North, known to me to be the [793] attorney in fact of the Maryland Casualty Company, the corporation that executed the within instrument, and acknowledged to me that said corporation executed the same; and that the signatures to said instrument of said attorney in fact, are the genuine signatures, respectively, of said

James L. Van Norman, its attorney in fact, and said Vivian J. North, its attorney in fact.

[Seal]

L. B. BELCHER,

Notary Public in and for the County of Los Angeles,
State of California.

[Endorsed]: No. B-19. United States District Court, Southern District of California, Southern Division. Robert E. Bole and Edward Double, Complainants, vs. Wilson and Willard Manufacturing Company, and Elihu C. Wilson, Defendants. In Equity Bond on Appeal. Approved hereby this 22d day of April, 1915. Oscar A. Trippet, District Judge. Raymond Ives Blakeslee, 728-30 California Building, Los Angeles, Cal., Solicitor for Defendants. Filed Apr. 22, 1915. Wm. M. Van Dyke, Clerk. By Leslie S. Colyer, Deputy Clerk. [794]

[Order for Transmission of Certain Original Physical Exhibits to United States Circuit Court of Appeals for the Ninth Circuit.]

In the District Court of the United States, in and for the Southern District of California, Southern Division.

No. B-19—EQ.

ROBERT E. BOLE et al.,

Complainants,

vs.

WILSON & WILLARD MANUFACTURING
COMPANY et al.,

Defendants.

It appearing that the respective parties to this cause have requested such action, and good cause appearing therefor, it is ordered that the following original exhibits, to wit: Defendants' Exhibit 1, Wilson single-piece key reamer; Defendants' Exhibit 9, Wilson Reamer Block Elevating Lever; Defendants' Exhibit 11, Key inserted by Bole in Defendants' Exhibit 1; and Defendants' Exhibit 12, Lever used by witness Bole in demonstration,—forming part of the evidence in this cause, being necessary to inspection by the United States Circuit Court of Appeals for the Ninth Circuit, and by the Supreme Court of the United States, if said cause is appealed thereto, may be sent up as original exhibits instead of making copies or duplicates thereof, in addition to the transcript of the record, in accordance with Subdivision 4 of Rule 14 of the Rules of the United States Circuit Court of Appeals for the Ninth Circuit, and Subdivision 4 of Rule 8 of the Rules of the Supreme Court of the United States; the said original exhibits to be delivered to the Clerk of the United States Circuit Court of Appeals for the Ninth Circuit, to be returned to the files of the cause in this court, upon the final determination of the appeal herein by the United States Circuit Court of Appeals for the Ninth Circuit or by the Supreme Court of the United States, if appealed thereto.

OSCAR A. TRIPPET,

Judge.

Los Angeles, Cal., August 5, 1915. [796]

[Endorsed]: No. B-19—Eq. United States District Court, Southern District of California. Southern Division. Robert E. Bole et al., vs. Wilson & Willard Manufacturing Company et al. Order for Transmission of Original Exhibits. Filed Aug. 5, 1915. Wm. M. Van Dyke, Clerk. By Leslie S. Colyer, Deputy Clerk. [796]

[Praeipie for Transcript on Appeal.]

In the United States District Court, Southern District of California, Southern Division.

No. B-19—IN EQUITY.

ROBERT E. BOLE and EDWARD DOUBLE,
Complainants,

vs.

WILSON & WILLARD MANUFACTURING
COMPANY and ELIHU C. WILSON,
Defendants.

PRAECIPE UNDER EQUITY RULE 75.

To the Clerk of the Court:

You will please incorporate into the Transcript on Appeal from this Court to the Circuit Court of Appeals an order allowing appeal on behalf of defendants, made and entered this 21st day of April, 1915, the following portions of the record in this cause in equity, to wit:

The certified copy of the trial record of the testimony and proceedings taken and had in this case as duly filed;

The Bill of Complaint herein;

The Amended Answer and Amendments to the Amended Answer of the defendants herein;

The Reply of Complainants;

The Assignments of Error filed herein;

The Names and Addresses of the Solicitors and Counsel for the parties herein;

The Citation on Appeal herein;

The Petition for Order Allowing Appeal herein;

The Order Allowing Appeal herein;

All of the original Exhibits herein or duly certified copies thereof; [797]

The Opinion of the District Judge on file herein;

The stipulation of April 22d, 1915, and Court Order of April 23d, 1915, as to withdrawal of exhibits.

The Interlocutory Decree herein.

Very respectfully,

RAYMOND IVES BLAKESLEE,

Solicitor for Defendants-Appellants.

[Endorsed]: In Equity No. B-19. United States District Court, Southern District of California, Southern Division. Robert E. Bole, and Edward Double, Complainants, vs. Wilson and Willard Manufacturing Company and Elihu C. Wilson, Defendants. Filed Apr. 26, 1915. Wm. M. Van Dyke, Clerk. By Chas. N. Williams, Deputy Clerk. Praecept Under Equity Rule 75. Received a copy of the within Praecept this 23d day of April, 1915. Frederick S. Lyon, Solicitor for Complainants-Appellees. Raymond Ives Blakeslee, 728-30 California Building, Los Angeles, Cal., Solicitor for Defendants. [798]

[Certificate to Transcript on Appeal.]

*In the District Court of the United States, in and for
the Southern District of California, Southern
Division.*

No. B-19—EQ.

ROBERT E. BOLE and EDWARD DOUBLE,
Complainants,

vs.

WILSON & WILLARD MANUFACTURING
COMPANY and ELIHU C. WILSON,
Defendants.

I, Wm. M. Van Dyke, Clerk of the District Court of the United States of America, in and for the Southern District of California, do hereby certify the foregoing eight hundred (800) typewritten pages, numbered from 1 to 798 inclusive, and including numbers 93A and 681A, and comprised in two (2) volumes, to be a full, true and correct copy of the Bill of Complaint, Subpoena ad respondendum, Amended and Substituted Answer, Motion to Strike Alleged Counterclaim, Order Granting Motion to Strike Alleged Counterclaim, Motion for Leave to Amend, and Amendment to Amended and Substituted Answer, Order Granting Motion to Amend, etc., Reply, Interlocutory Decree, Opinion, Certified Transcript of Testimony, all Exhibits except those authorized by Order of August 5, 1915, to be transmitted to the United States Circuit Court of Appeals for the Ninth Circuit, Stipulation and Order of April 23, 1915, in re withdrawal of exhibits and trans-

mission to U. S. Patent Office, Stipulation and Order of April 26, 1915, in re transcript of testimony and portions to be stricken in preparation of transcript of record on appeal, Assignments of Error, Petition for Order Allowing Appeal, Order Allowing Appeal, Bond on Appeal, Order for Transmission of certain original exhibits, [799] (viz.: Defendant's Exhibit 1, Wilson Single-piece key reamer; Defendants' Exhibit 9, Wilson Reamer Block Elevating Lever; Defendants' Exhibit 11, Key inserted by Bole in Defendants' Exhibit 1; and Defendants' Exhibit 12, Lever used by Bole in demonstration), to the United States Circuit Court of Appeals, under and pursuant to subdivision 4 of Rule 14 of the Rules of the United States Circuit Court of Appeals for the Ninth Circuit, and Praecipe for Transcript on Appeal, and that the same together constitute the record in said cause as specified in the said Praecipe for Transcript on Appeal, filed in my office on behalf of the appellants by their solicitor of record;

I do further certify that the cost of the foregoing record is \$471.40, the amount whereof has been paid me by the Wilson & Willard Manufacturing Company and Elihu C. Wilson, the appellants in said cause.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seal of the District Court of the United States of America, in and for the Southern District of California, Southern Division, this 17th day of August, in the year of our Lord, one thousand nine hundred and fifteen, and of our Inde-

pendence, the one hundred and fortieth.

[Seal]

WM. M. VAN DYKE,

Clerk of the District Court of the United States, in
and for the Southern District of California.

By Chas. N. Williams,

Deputy Clerk. [800]

[Endorsed]: No. 2641. United States Circuit Court of Appeals for the Ninth Circuit. Wilson and Willard Manufacturing Company and Elihu C. Wilson, Appellants, vs. Robert E. Bole and Edward Double, Appellees. Transcript of Record. Upon Appeal from the United States District Court for the Southern District of California, Southern Division.

Filed August 24, 1915.

F. D. MONCKTON,

Clerk of the United States Circuit Court of Appeals
for the Ninth Circuit.

By Meredith Sawyer,

Deputy Clerk.

**[Order Extending Time to August 1, 1915, to File
Record.]**

*In the United States Circuit Court of Appeals,
Ninth Judicial Circuit.*

WILSON & WILLARD MANUFACTURING
COMPANY and ELIHU C. WILSON,
Appellants,
vs.

ROBERT E. BOLE and EDWARD DOUBLE,
Appellees.

Good cause appearing therefor, it is hereby ordered, that the time heretofore allowed said appellants to docket said cause and file the record thereof, with the Clerk of the United States Circuit Court of Appeals for the Ninth Circuit, be and the same is hereby enlarged and extended to and including the 1st day of August, 1915.

Dated at Los Angeles, May 12, 1915.

OSCAR A. TRIPPET,
U. S. District Judge, Southern District of California.

[Endorsed]: No. 2641. United States Circuit Court of Appeals for the Ninth Circuit. Wilson & Willard Manufacturing Company et al., vs. Robert E. Bole et al. Order Extending Time to File Record. Filed Sep. 7, 1915. F. D. Monekton, Clerk.

**[Order Extending Time to September 1, 1915, to File
Record.]**

*In the United States Circuit Court of Appeals,
Ninth Judicial Circuit.*

WILSON & WILLARD MANUFACTURING
COMPANY and ELIHU C. WILSON,
Appellants,

vs.

ROBERT E. BOLE and EDWARD DOUBLE,
Appellees.

Good cause appearing therefor, it is hereby ordered, that the time heretofore allowed said appellants to docket said cause and file the record thereof, with the Clerk of the United States Circuit Court of appeals for the Ninth Circuit, be and the same is hereby enlarged and extended to and including the 1st day of September, 1915.

Los Angeles, California, July 30th, 1915.

OSCAR A. TRIPPET,
United States District Judge, Southern District of
California.

[Endorsed]: No. 2641. United States Circuit Court of Appeals for the Ninth Circuit. Wilson & Willard Manufacturing Company et al. vs. Robert E. Bole et al. Order Extending Time to File Record. Filed Sep. 7, 1915. F. D. Monckton, Clerk.